American MILK REVIEW

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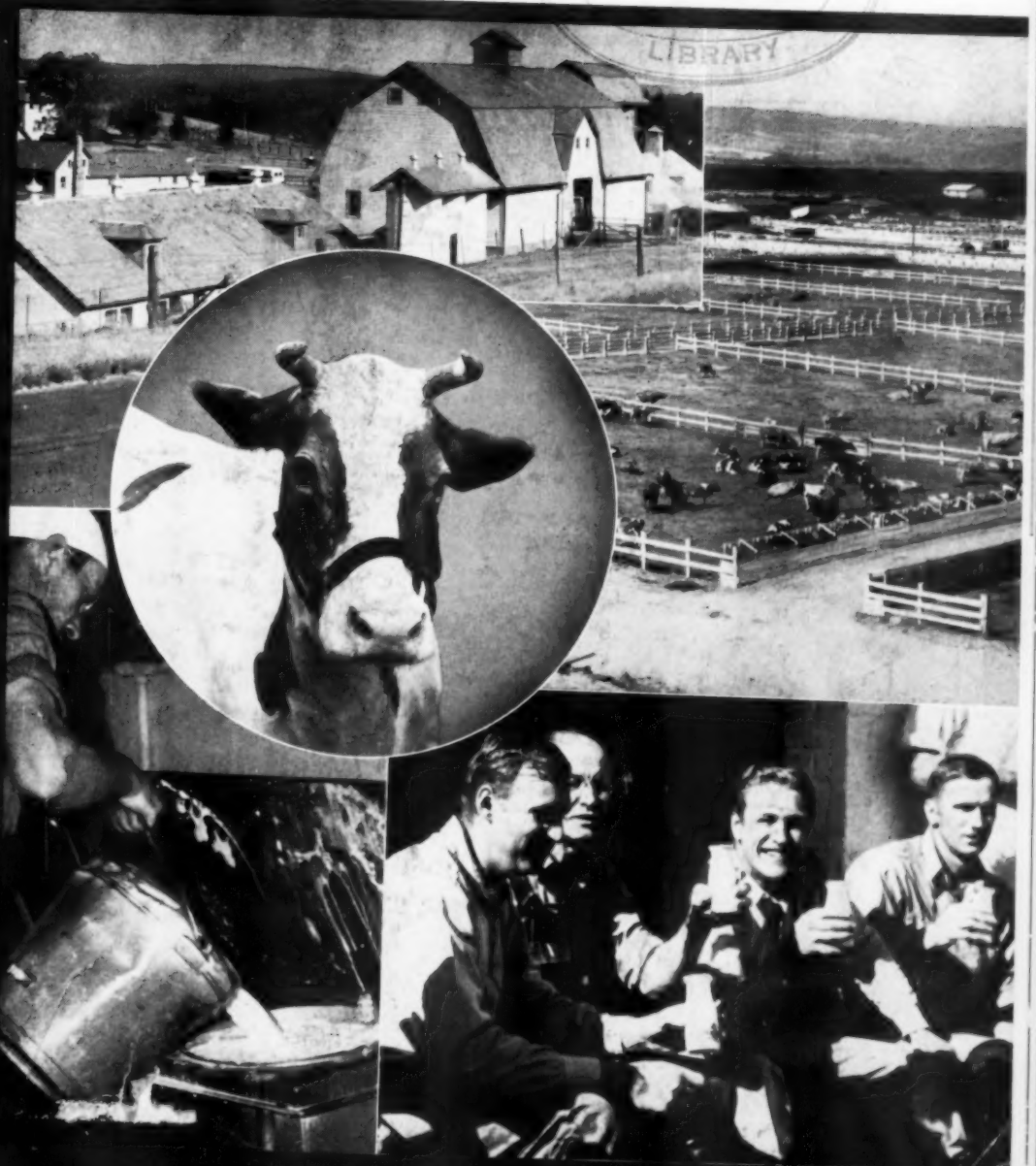

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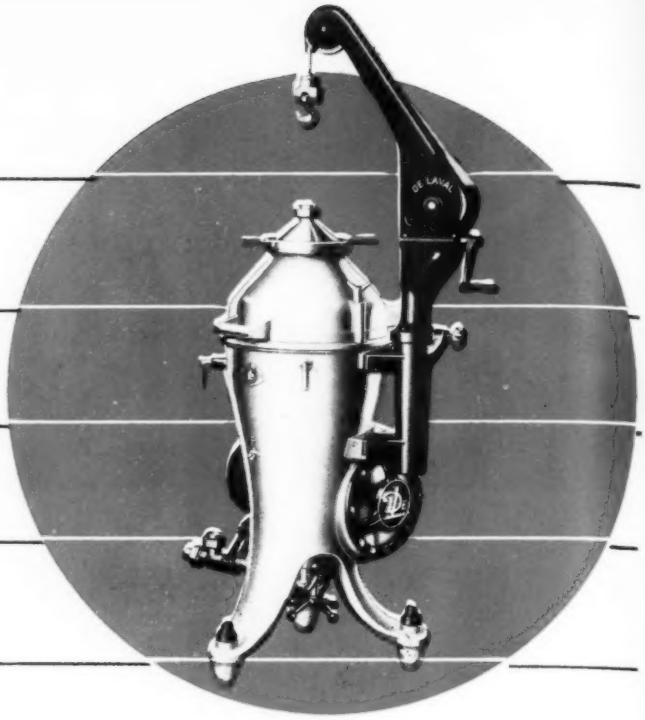

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American MILK REVIEW

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CONTENTS

	PAGE
The Secretary Looks at the Industry *By Clinton P. Anderson*	3
Trend in Fluid Milk *By Walter D. Hunnicutt*	4
Sixty Billion Quarts	6
What's Happening to the Cows? *By Norman Myrick*	10
From the Administrator's Office *By Herbert L. Forest*	14
An International View *By Winthrop G. Brown*	16
How the Public Looks at the Milk Industry *By G. G. Diffenback*	18
Report from the Big Four	24
Expansion in the Northeast *By A. A. Brown*	28
The South Is on the March *By Clara H. Rutledge*	30
What About Equipment? *By Robert Lorrey*	34
The Labor Picture	36
They Have to Have Grain *By L. C. Cunningham*	38
Report from the Industry	42
The Correspondents Report	44
Investigation in Chicago *By John F. Sembower*	46
Closing Sales and Handling Objections *By M. F. Williams*	50
Practical Aspects of Milk Hygiene *By C. S. Bryan*	56
Should We Get Wise? Let's Analyze *By Kenneth L. Chase*	58
New England Convention	60
Wants and For Sales	86
Index to Advertisers	88

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TODAY'S WORLD is a question mark. Everywhere men are seeking the answers to problems that pile up without respite. To us, as a nation, victory has brought responsibilities without precedent and power beyond measure. How best to discharge our responsibilities and how best to use our power is the great enigma.

On a lesser scale, yet inextricably a part of the grand design, are the riddles of the market place. Here, where the nation's economic pulse runs close to the surface, buyer and seller contend with the baffling uncertainties of an economy battered by war while the supreme question of peace or disaster is ever in the background.

The dairy industry is a part of the vast swirling current that is the society of men. Here, as elsewhere, the questions are constant, the answers urgent. What is the future of butter? To what low will milk production sink? Will consumption hold up? Where will government regulation lead? These are profound questions. The nature of their answers will determine the course of the Dairy Industry's future.

The editors of the American Milk Review have been aware of the dynamic nature of these problems. In an effort to provide a basis for understanding as the first requisite for clear thinking we have built this issue of the magazine. A major part of the publication has been devoted to a symposium on trends in the fluid milk industry. We have not attempted to propound solutions. We have gathered information and tried to show its relationship to the whole. We have called upon eminent men in the industry and men associated with the industry to examine these problems with us. Our effort has been a cooperative effort. The result is the product of many minds and many thoughts.

We are deeply grateful to the men who have given so generously of their time and their intellect to make this symposium possible. We believe that the industry will find here much that is of value. We take pride in giving this issue of our publication to the Dairy Industry.

— Norman Myrick

The SECRETARY LOOKS AT THE INDUSTRY

CLINTON P. ANDERSON

I HAVE EXPRESSED, many times, my admiration for the fine production job done by the American dairy industry both during and since the war. The accomplishments of dairymen in every quarter of the land have made a remarkable contribution to the improvement of the American diet and to the relief of human suffering abroad.

Last year's milk production on farms was less than two percent below the all-time high of 1945, and was 15 percent above the prewar average of 1935-39. Per capita consumption of most dairy products continued at a higher level than prewar, fluid milk and cream consumption being 17 per cent higher than the 1935-39 average, cheese 29 percent higher, ice cream more than double, and consumption of dried milk products 71 percent higher. Of all dairy products only butter remains below the prewar rate of per capita consumption.

Last year a new record was established for average milk production per cow—5,000 pounds, as contrasted with the 1935-39 average of 4,403 pounds.

This, except for butter, is the favorable side of the picture. High production and an improvement in buying power are the two reasons why many low-income families have been able in recent years to include milk and other dairy products in their regular diet. I can not begin to put into words how important this has been to their health.

Nor can I express what dairy products from this country have meant to hungry people in other lands—what they have done for morale as well as physical health, particularly of children.

But there is another side to the picture and it brings serious questions to our minds.

Is is enough merely to better the prewar record. The prewar population of the United States was about 129 million. Today it is over 145 million. An expanding dairy industry is necessary if the food needs of our people are to be met. Is the dairy industry preparing itself to meet the needs of the future?

In late 1944 the number of milk cows in this country began to decline, and the trend continued downward through 1946 and 1947. It may be continuing in 1948. Milk production on farms last year averaged only a few more pounds per capita than it did during prewar years. In the early months of 1948 it actually ran below prewar. True, per capita consumption of dairy products made from whole milk remains well above prewar. This has been possible because many farmers who formerly sold farm-separated cream are now marketing whole milk. It has also resulted in a smaller production of butter since there was not enough milk available for both increased consumption of whole milk products and the prewar level of butter consumption. Under free prices consumers have chosen to maintain the consumption of whole milk products rather than to increase butter consumption.

Even though most of our milk continues to move to the market in the form of whole milk, the reduction in dairy herds has caused the per capita supply of milk to start downward. If this trend continues it can be very costly to the health of the Nation.

Dairymen and the general public equally recognize the gravity of the problem. The milk-feed price ratio is the lowest in more than ten years. At the same time, the price of beef is high. As a result, there is a strong temptation to reduce herds.

On the other hand, the problems we face are not insuperable. We still have a good backlog of young dairy stock. Feed supplies should be more plentiful this fall. Meanwhile, farmers can help maintain milk production by improving pastures, and by making fullest possible use of forage and existing grain supplies. Every means of reducing costs of production and distribution should be fully utilized.

Though the solution is by no means simple, dairy producers and processors should continually strive to see that the Nation's needs are met. This is a real challenge to America's dairy industry.

Trends IN THE FLUID M

WALTER D. HUNNICUTT

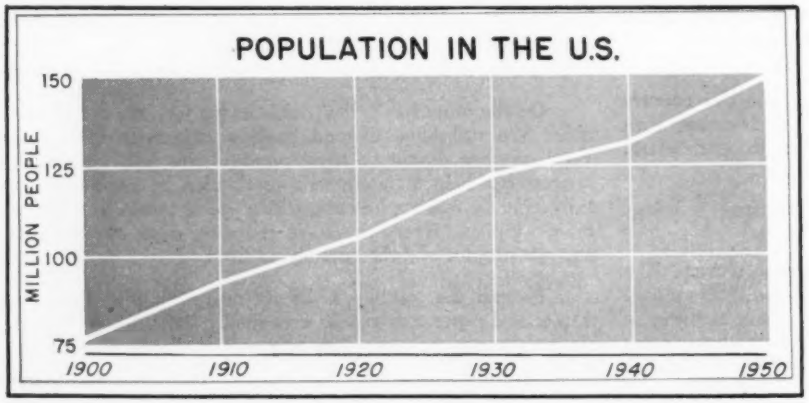
THE RELATIVE IMPORTANCE of fluid milk and cream in comparison with other milk uses has continued to increase until in 1946 the quantity used in cities, villages and on farms constituted 49.2% of total milk production. Most of this increase was at the expense of butter production, which is now approximately one-third of pre-war consumption. Consumption of fluid milk and cream has increased from approximately 354 lbs. annually per capita in 1925 to 435 lbs. at the peak in 1945, but has now declined to 400 lbs. down 8% from the peak but 13% above the 1925 per capita figure. The decline has been due to competition for other dairy product uses, by other foods and by consumer goods for the consumer's dollar, along with the growth in population, recently at a much faster rate than the production of milk.

Mr. Charles F. Brannan, last October, in testimony before the Senate and House Agriculture Committees, estimated that the 818 lbs. annual per capita milk consumption in 1946 should be 1,000 lbs. per capita, as a reasonable potential. This would mean that instead of the production of 120.15 billion lbs. in 1947, we should have had a production of 144 billion lbs. This indicates the extent to which milk production has fallen below the potential demand for fluid milk, cream and other dairy products. This shortage is expected to become more acute this year in view of our steadily increasing population and larger consumer incomes in contrast with the probable decline in production for 1948 of from 2% to 4% below 1947.

Wages and Milk Prices

In spite of competition for supply, the proportion of consumer's annual income necessary to buy a constant quantity of dairy products was actually 23% less in October 1947 than the average for 1935-39 according to the Bureau of Agricultural Economics. Figures compiled by Dr. Pierce of Pennsylvania State College, based on the monthly prices of 33 food items reported by the Department of Labor between May 1939 and May 1947 showed price increases for 29 items ranging from 63% on roasting chickens to 61% for navy beans, while the price of milk increased only 50%. Only three foods increased less than milk, oranges, 47%, fresh spinach, 31%, and canned peas, 18%. The average increase for all foods during that period was 96%. These comparisons indicate the extent to which milk and dairy products have continued to be the consumer's best buy.

The dairy industry is faced with the concurrent problems of increasing milk production to meet our rapidly increasing population and at the same time maintaining consumption. The census estimate of U. S. population on July 1, 1939, was 130.9 million people. On August 1, 1947, this was 144.2 million people. By July 1, 1950, our population is expected to reach, or be very near to 150 million people. By 1950 it is estimated there will be more newly married couples than ever before, with a birth rate roughly 10% higher than in the early 30's. In addition to the population increase, the two elements in our population that should have the most milk, the young and the old, further increases the need for milk.



Production Is Down

Now let us look at the supply picture. Milk production has not kept pace with our growing population. Production in 1939 by cows on farms was 106.8 billion lbs. During the war years, milk production showed a remarkable increase, reaching a peak in 1945 of 121.5 billion lbs. However, since that year, production has declined in the face of increasing population and for 1947 is estimated at 120.15 billion lbs. and in 1948 may drop to as low as 116 billion lbs. Part of this decline in milk production is due to the drop in dairy cow numbers of from 7 to 10% since the peak in 1945, and is further aggravated by the adverse milk-feed price ratio. On December, 1947 farmers in the U. S. could buy only 1.16 lbs. of concentrate feeds compared with 1.57 in December a year ago.

Preliminary forecasts by the Department of Agriculture state that the de-

MILK INDUSTRY

By **WALTER D. HUNNICUTT**

National Dairy Products Corporation

cline in dairy cow numbers is expected to level off in 1948 because the number of replacement heifers is sufficient to maintain cow numbers without further decline. I think it is doubtful that this will occur this year, since the adverse factors that have led to the decline in dairy cow numbers since 1945 have been further accentuated this year.

There probably never was a time when it was so advantageous for farmers to increase dairy cow numbers and heifer replacements to anticipate the needs of our growing population and cash in on the relatively higher prices that will be paid for scarce milk for some years to come, and in comparison with the lower prices that eventually will prevail for grains and other lines of livestock due to increased feed supplies. Experience has shown that farmers increase their corn acreage after a short crop year. Based on this, the Department of Agriculture in its forecast has stated that, given a normal season, we are likely to have a large corn crop this Fall and lower prices in consequence. If this occurs, it should reverse the adverse milk-feed ratio and give dairy cows and milk production an advantage from the standpoint of lower cost of feed. In view of the length of time required to build up dairy cow numbers, now is the time to get ready for lower grain prices that are bound to come when European demand falls off. Most good dairy farmers realize this, which is evidenced by their having held on to their cows even though relative returns in comparison with other farm products were temporarily lower. Other farmers who have grown discouraged and are considering cutting down or disposing of their dairy cows should recognize this prospect before they deplete their herds.

Pennsylvania In a Favorable Position

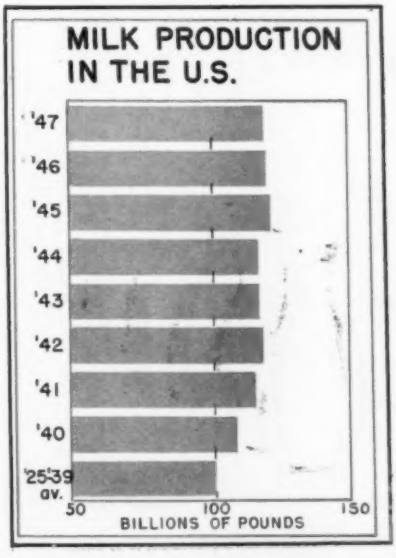
The trend toward higher transportation rates works for Pennsylvania milk producers due to their advantageous geographic location. New England and New York State are short of milk, and in view of population increases probably will continue to be short of milk. The Northeastern states since 1940 have increased 8.7% in population. Massachusetts increased 12.9%; Connecticut 19.4%; New York State 5.1%, and New Jersey 7.2%. Each of these states, as well as the Northeast as a whole, is a deficit milk production area. Pennsylvania has greater capacity to increase milk production than the states north and east of it, and enjoy a competitive advantage over the Middle West in supplying this deficit.

Except in the Northeastern border counties, Pennsylvania farmers are not producing milk up to the efficient capacity of their farms. These farmers have prided themselves on continuing to operate general farms. During the last few years this has been profitable due to extremely high prices for grain and livestock, but high grain prices cannot last. Pennsylvania farmers can profitably increase the size of their dairy herds by the production of improved pastures, hay and silage crops that will give them more efficient production and more milk to supply the deficits in production in the Northeast. Larger size herds and increased production of roughage crops will add to Pennsylvania farm income, conserve soil, and improve the yields of other crops grown on the farm. If business prosperity continues so as to support post war levels of milk consumption, the increased need for milk by the growing population will probably justify the same type of dairy farming in Pennsylvania that prevails in New York and New England. Producers in those states stock their farms with cows up to the roughage capacity of their farms and purchase their grain needs from the West. Although farmers in the Middle West recognize that high grain prices based on huge exports cannot continue indefinitely, probably only drastically lower prices can change the increased grain acreage habits acquired during and since the war. Thus, it seems likely that it will be some years before Middle Western farmers will cut down the production of excess grain supplies, which probably means a long period of low grain prices. Since it takes time to build up dairy cow numbers, farmers should start now to get ready for that period.

Other Dairy Products

Up to this point I have developed my subject from the standpoint of trends affecting demand and the supply of milk. It is necessary also in a discussion of this subject to consider price relations, based on the effect of competition of other dairy products, in maintaining fluid milk and cream consumption. Evaporated milk consumption has increased since 1920 at an average rate of 1.5 million cases per year. Yearly consumption per capita in 1920 was 7.2 lbs. and in 1946 was estimated at 17.6 lbs. Evaporated milk has steadily absorbed more and more of the demand for fluid cream by consumers. It has also become steadily more important for infant feeding. It is also a serious competitor of fluid milk for use by lower income consumers. The evaporated industry has been following a policy of encouraging sales by very narrow margins and as a result inventories of evaporated milk in wholesale grocers' hands as of December 31 were 9% below a year ago. The shortage of milk production is also affecting evaporated production which showed an estimated drop for January of 600,000 cases compared to a year ago. Dried milk is also a growing competitor of fluid milk. Increased consumption in these fields will probably continue. Their effect, however, should not be serious, provided a policy of properly relating fluid milk and cream prices to evaporated milk is followed. There is an ample field for increased consumption of all dairy foods, so this competition should not be serious if prices are kept in proper relation.

(Please Turn to Page 80)



SIXTY BILLION QUARTS

THE NEW ENGLAND YANKEE carries a heavy burden. Because he has been forced to contend with a frugal land he has developed a habit of thought and deed that has come to be regarded as wisdom. In these troubled times perhaps it might be well to sit at the feet of two of these hill country sages and absorb some of the finer distillations of their thinking. The dialogue that follows is an imaginary conversation between two imaginary characters in an imaginary country store in Northern New England. The protagonists are dairy farmers somewhat beyond middle age. Their names, as you will deduce, are Ned Tomas and Ben Hall.

"Ev'nin' Ben."

"Ev'nin' Ned."

"Been ailin'?"

"Nope."

"Hain't seen ye fer consid'r'ble spell."

"Been to Floridy."

"So."

"Yep."

"Who done the chores?"

"Ashley Wilson."

"So."

"Yep."

"Calcalate it cost a dolla."

"It done so."

"Wish you hed it back?"

"Nope. Got good value."

"So."

"Yep. Got good value."

"Well guess they's some don't care how they squander their money. Guess they's some can't get a dolla but they got to spend it, seems though."

"Preach if yer a mind to, Ned. T'wont do a mite o' good. I done it 'n' 'm glad I done it. Calc'late to do it agin'. Got good value."

"Such as what?"

"Learned things."

" 'Bout what?"

"Milk."

"They got milk in Floridy? Thought all the milk went to Boston."

"Well it don't, not by a dang sight it don't. Some goes to New Yawk, some goes to Philadelphy, some goes to Chycogy, some goes to San - - - Fran - - - cisco. Why they even got milk in Washing't'n State."

"Pob'ly white, I s'pose."

"Yep. S'white."

"Didn't think they was that much milk in the country."

"Why, Ned, they's more dodgasted milk in this country 'n' you c'n shake a stick at."

"So."

"Yes sir, more durned milk 'n' you c'n shake a stick at. Jest haow much milk 'dyou say they was, Ned? Give a guess."

"Shucks, Ben, I dunno. Le's see, I make close to three can a day. Heard you was makin' the same. Stillson Turner makes four—this counting hog feed too?"

"Ev'r'thin'."

"Shucks, I dunno. Mebbe a million jugs, mebbe two million. No, reckon she'll run close to five million."

"Why Ned, that ain't so much 's wan't made."

" Haow's that agin'?"

"Said that wan't so much 's wan't made."

"Don't foller ye."

"Know what a billion is don't ye?"

"Heard some 'baout it. Guv'munt thing ain't it?"

"A billion is a thousand million. A thousand million, Ned. 'N' by ding that's haow many jugs o' milk they is made in this country."

"So."

"Yep. A thousand million."

"Take some drinkin' won't it."

"Should say so. Feller up to Floridy was sayin' haow there was more'n two hundred qua'ts fer ev'y dodgasted person in the country. Means ev'y man, woman and child drinks more'n a pint ev'y single day in the year."

"Why, godfrey gorman, Ben, you know that ain't so."

"Well, b'godfrey t'is so."

"Well b' godfrey t'ain't 'n' you know tain't. Why there's Jason Willard's widder hain't drunk a drop sence she was weaned. They's Alden Sears can't hahdly stand to strip a caow he hates the stuff so. Seems his mother was scat by some old brindle creature they was keepin' when she was carrying Alden. Then they's Harlan Streeter so durn full o' hard cider he ain't got room fer nawthin' else. I could name ye a dozen folk don't drink milk 'tall."

"Well they eat ice cream don't they? They eat butter 'n' drink coffee 'n' put cream in it."

"Guess that's so. Didn't think o' that. Still butter 'n' ice cream ain't milk."

"Made frum milk 'n' don't make no great diff'runce if a feller is to eat it or to drink it. Goes down either way."

"Well tain't milk, it's cream 'n' if you're agoin' to drink the cream 'n' throw away the milk course you c'n use up a lot."

"No need to throw it away. You c'n dry it."

"Oh come naow Ben, I wan't bawn yestiddy. Dry milk—I do declare."

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"'S a fact. Feller up to Floridy come from Wisconsin way. Said they put up cons'dr'ble out there. Had some with him. Looks like flour. Tasted some."

"So."

"Yep. This feller, farmer name o' Johanson, this feller said they was puttin' up cons'dr'ble more'n they did before the wah."

"So."

"Yep. Said they wan't makin' near so much butta as before the wah, not by a third."

"Mite foolish hain't they."

"Haow so?"

"Why they tell me butta's bringing close to a dolla. Should think they'd make's much butta's they could fer a dolla."

"Well, why don't you make butta? You could git the dolla."

"Git more fer my milk frum the milk comp'ny 'n' I do frum the cream'ry."

"Course you kin 'n' so c'n ev'ybody else. That's the trouble."

"Wonder why t'is. Didn't used to be so."

"Tried to tell you. More people drinkin' more milk, that's why. Ain't much left over to go into butta 'n' things. They was a feller up to Floridy said they was agoin' to be a hundred 'n' fifty million people in this country come 1950."

"Talkin' like a guv'munt man again' ain't ye."

"Well mebbe guv'munt men hev to talk big. She's a durn big country."

"That Wisconsin feller, Jo what-ever-his-name is, did he say what they was gittin' fer milk out there?'"

"Yep said they was gittin' four 'n' a half to five."

"T'ain't so much's' she's fetchin' here is it?"

"Nope, but don't cost 'em so much to make it out there. Grain's cheapa. Make more milk too. Gitt'n a durn sight more'n they did before though. Gitt'n a durn sight more most ev'ywhere."

"Well I don't figger it to last. Prices high 'n' more folks drinkin' milk means more folk agoin' to make milk. More folks makin' milk 'n' daown goes the price. No sir, don't figger she's agoin' to last."

"Why great land o' Goshen Ned, haow yeu talk. Folks ain't making more milk. Fact is folks ain't makin' so much."

"Ben, Floridy ain't done you no good. Not makin' so much milk—the idee. Why, my crimus, twan't but day before yestiddy, Stillson Turner bought a new caow 'n' two heifers. Give a steer 'n a set o' harness. Heard the caow was a three titta."

"Give any boot?"

"Twenty-nine dollas."

"So."

"Yep. Heard the caow was a three titta 'n' the heifers was twins. Calc'late Stillson didn't do 's well 's he should of seems though."

"Well don't matter what Stillson Turner done. Fact is they's more folks stoppin' makin' milk'n' they is folks commencin' to make milk. Why they was a feller up to Floridy was sayin' folks ain't made so much milk this year by seven million jugs as they done last year this time. 'S what I mean't before when I said five million jugs wan't made."

"Durned if I c'n b'lieve it. Durned if I can, prices up the way they is. Drummer come through frum Boston t'other day. Said he was givin' twenty-two cents a qua't in the city, twenty-two cents a qua't."

"Don't make no odds. Folks jest ain't makin' milk these days. Fact is with grain where t'is 'n' all, folks ain't really gittin' so much fer their milk 's they done two, three years ago."

"Well, I dunno. Seems like if they's more folks drinkin' more milk they ought to be more milk to drink. I dunno."

"Milk prices got to go up 'n' grain's got to come down 'for they'll be more milk. We got to farm better'n we have been too."

Farm better! Why shucks, Ben, ain't farmin half's good's I know haow naow."

"Looks to me, Ned, 's though it might be a good time to git in some fust class heifers."

"How so?"

"Looks to me like either grain was goin' to come doawn or milk was goin' to go up. Like you say, if they's more folks wantin' milk then seems like they ought to git it 'n' the only way they're agoin' to git it is fer grain to go doawn or milk to go up so more farmers make more milk. I figger, frum the looks o' things, that folks really want milk! I figger folks need a billion jugs, yes sir, a billion jugs."

"Oh come naow, Ben, a billion jugs, why that's close to sixty million qua'ts. You really thinks folks want that much milk?"

"I said they *need* sixty billion qua'ts. What they want is somethin' else again'. Why hellsfire Ned, was they to get what milk they want folks'd buy seventy billion."

"I don't b'lieve it."

"S fact."

"But Ben, seventy billion qua'ts. Why Ben, we'd be swimmin' in milk."

"It'll come. You mark my words, it'll come."

"Well I declare, don't hardly seem possible. I declare it don't."

"It'll come. You jest watch."

"Well I never. No sir, I never, never would a thought it. Seventy billion quats. . . . Don't see where it's all agoin' to come frum. I declare I don't."

"Caows."

"You jest got through sayin' they wan't 'nuff caows naow."

"They ain't."

"Well if they ain't caows 'nuff naow how in thunda you goin' to make more milk?"

"Grow don't they"

"Course they grow. So do thistles."

"Heifers ain't they?"

"Course they's heifers but I don't notice folks gettin' much milk out of 'em. 'N when they git to be caows the milk ain't goin' to run out of 'em. Somebody's got to pull the tits."

"Now there ye've got a pint, there ye've got a pint."

"Calc'lated 's much."

"Know what a feller up to Floridy was sayin'?"

"I dunno what t'was but I doubt if I b'lieve it."

"Feller frum Iowa. Said most milk farmers was past fifty."

"So."

"Yep. Past fifty."

"Where's the young folks?"

"City, prob'ly."

"Won't get no seventy billion qua'ts there."

"Nope."

"Don't see where it's comin' from."

"Well, I'll tell ye, where she's agoin' to come from. She's agoin' to come from the South."

"So."

"Yep. Pasture cattle all year round in the South 'Ned, pasture 'em all year 'round."

"Is that a fact?"

"Yep. Don't hev to cut hay. 'Course they's ticks 'n' such 'n' they been tied to a bale o' cotton up to now. But they got the makin's, Ned. They got all fiired good makin's."

"Well I vow. Turn 'em out pasture year 'round."

"Yep. Turn 'em out to pasture year 'round."

"Well I vow. Don't cut not hay."

"Nope."

"Jest turn 'em out to pasture."

"Yep."

"Well I vow. Ben, I got to buy you a drink on that. By gadfrey Ben I got to stand you treat. Arthur, give us two five cent glasses o' sody. Yes sir Ben I'm agoin' to stand you treat. What flavor'll ye hev?"

"Strawb'ry."

"Ben'll hev strawb'ry Arthur 'n I think I'll hev the same. Ben jest got back frum Floridy Arthur. Jest got back. Ben learned consid'r'ble daown there. Floridy's a great place Arthur, a great place. thinking some o' goin there myself. Yep, thinking mighty consid'r'ble o' goin there m'self."

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What's Happening to the Cows?

By **NORMAN MYRICK**

OLD BOS TAURUS Primigenius, the ancient granddaddy of the dairy cow, is probably scratching his bovine skull in bewilderment. Why should 1947, a year of record prices for cattle, of near record prices for milk, of a reasonably good milk-feed ratio be characterized by a decline in the dairy cow population of the United States. If you were to press old Bos Taurus for facts and figures he would probably point out to you that there was Dunloggin Mistress La Princess, a Holstein-Friesian aristocrat, who brought $23,500 at a sale. He would tell you about the $4.71 milk dealers' average buying price for standard grade milk used for city distribution, highest on the books. He would probably add that his descendants were each producing more milk than ever before, a smashing 5000 pound average for the nation. And what do you guys want for your money anyway?

What the patriarch would have to say is true. Milk prices, cow prices, production per cow, mechanization, all were the highest or close to the highest on record. And yet in spite of these facts the total number of dairy cows has declined more than two million head from the 1944 all time high. In the year 1947, with the demand for fluid milk at unprecedented levels, the dairy cow population stood at 23,871,000 animals, a seven percent drop from 1944—a scant one percent above the 1941 figure, and *only five percent over the 1925-1939 average.*

Fortunately the decline in bovine numbers has not had as marked an effect on milk production as might have been expected. Although milk production has declined and gives promise of further decline, the increased productivity of dairy cattle has offset the diminution of numbers. Total production for the nation in 1945 was 121.5 billion pounds, 119.7 billion in 1946 and 119.3 billion in 1947. Estimates for 1948 go as low as 115 billion pounds and as high as 118 billion pounds.

Milk Production is Hard Work

It would be quite easy to become mysterious at this point and find all sorts of complicating factors in the picture. The answer to the why of dairy cow decline is not, however, particularly difficult. If one takes into consideration that the average age of dairy farmers is over fifty years, that the milk-feed ratio for last year was 1.19 as opposed 1.35 in 1946 and 1.41 in 1945; that dairy farming is probably one of the most exacting phases of agriculture; and that the increasing emphasis on quality milk at the farm demands additional care and thought by the producer one begins to see why there is a trend away from milk production. The long and short of the problem is simply that there are easier ways of making a living.

In an economic system based on freedom of enterprise the dominant factor in determining the volume of production of a particular product is the reward that awaits the producer and the alternatives that are available to him. There are some dairy husbandmen who are in the business because they like it. As long as they can make a living at producing milk they are reasonably satisfied. They have their facilities, their cattle, and the skill of long experience. They are dairy farmers. But there are a great many producers who were attracted to the industry by the profits of war years and the deferment from military service that agricultural operations offered. It is no disparagement to say that this type of producer is guided more completely by economic considerations than is the dyed-in-the-wool, long-time dairy farmer. If he can make more money by selling grain as milk he will probably make milk. If he can make more money by selling grain as grain he will probably raise grain. If the difference between the money he can make selling milk and the money he can make selling grain is not decisive then other factors enter into the picture. These other factors are ordinary things such as how hard must the producer work, how tied down will he be, how he feels about shoveling manure, how easily can he shift from one enterprise to another, how much of an investment does he have, and what are his neighbors doing. The dairy farmer is "married" to his cows. He must be on the job 365 days each year. He has health regulations to meet and the delicate mechanism of a dairy cow to deal with. Although other agricultural enterprises have their own rigid rules, the age-old appeal of the other side of the fence is undeniable.

Variation in Abilities

It is difficult to make a blanket statement and say that all dairy farmers are making money or that all dairy farmers are not making money. Statistically the dairy farmer is not doing as well as he did in 1944. In Massachusetts only a month ago, a producer representative declared that the price of milk was so far out of line with the cost of milk production that Massachusetts farmers were rapidly going out of business. The only new-comers, the representative said, were

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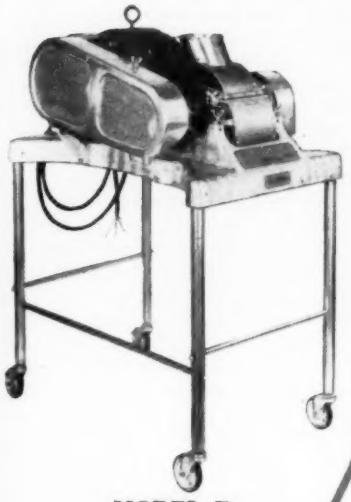

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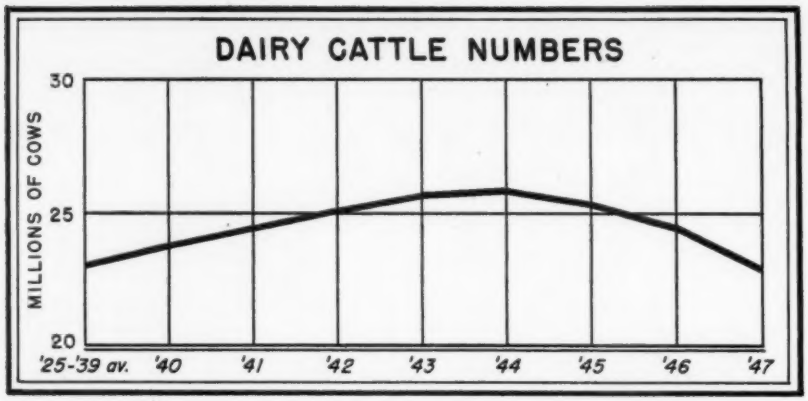


G.I.s, "and they got stuck." Yet, because of the wide variation in the ability of individual farmers, there is a wide variation in incomes. The writer knows, through personal acquaintance, of two contrasting cases. In one instance the farmer, a young lad who learned his farming through his father and experience, had a hard time making both ends meet. The other producer, who likewise learned his trade from his father plus four years in animal husbandry at a land grant college, reported *a net income in excess of $10,000.* While it is obviously ridiculous to draw conclusions concerning five or six million producers on the basis of two cases, one cannot help thinking that the examples are indicative of the industry as a whole. In other words there are probably a large number of capable operators who are doing very well in spite of conditions less favorable than those that prevailed two or three years ago. On the other hand there are many, many producers who either through lack of ability or lack of knowledge can make money by producing milk only under extremely favorable conditions. It is this latter group pulling out of the business that is presumably at the bottom of the decline in cow numbers.

Milk-Feed Ratio Poor

Students of animal nutrition place the amount of dairy ration required to produce a hundred pounds of milk at about thirty pounds. The amount of dairy ration actually fed will, of course vary with the conditions of pasture and roughage available. As a guide to the ever present problem of feed costs in relation to milk prices a device known as the milk-feed ratio has been developed by economists. This ratio shows the amount of grain that a specific amount of milk will buy. Last year this ratio stood at approximately 1.19. This means that on the average a hundred pounds of milk would buy a hundred and nineteen pounds of feed. The year before a hundred pounds of milk would buy a hundred and thirty-five pounds of grain and in 1945 a hundred pounds of milk would buy a hundred and forty-one pounds of grain. Average grain prices have advanced from $52.00 a ton in 1945 to $72.00 in 1947. The United States Department of Agriculture reports that an index of the price of ten high protein feeds shows an increase of 138 percent since 1945.

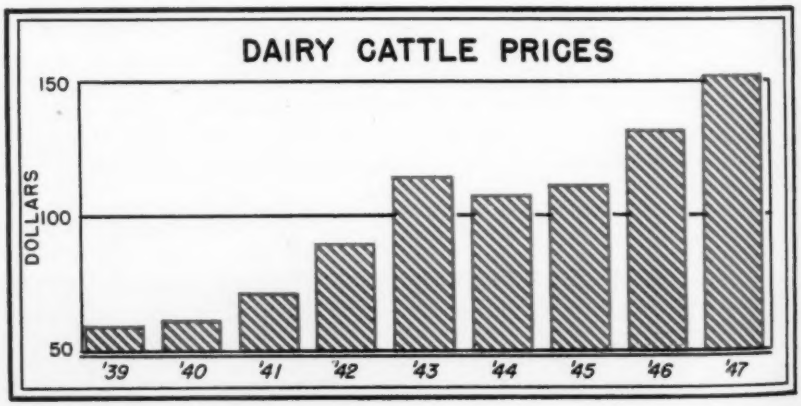
Farm wage rates have also increased. New York State wages in agriculture have jumped from $110.00 a month without board in 1945 to $136.00 in the first months of 1948 with further increases on the horizon. Pennsylvania experienced a $3.00 increase in 1948 over 1947 bringing the average without board up to $115.00. With board, Keystone State farmers were paying $77.70 on the average in 1945 and $95.00 in 1948. The national average wage rate with board as of January of this year was $95.00, a whopping four hundred and thirty per cent increase over the 1935-1939 average. Without board the national average on January 1 was $113.00 compared with $32.02 for the 1935-1939 period, a three hundred and fifty-three per cent jump.

Cattle Prices at New High

On the positive side of the dairy farmer's ledger are increased prices for the things that he has to sell. Cow prices are at the highest levels in history. The Holstein-Friesian Association found the average auction price of $418.64, brought by purebred Holstein-Friesians in 1947, to be a record breaking figure. Minnesota reports that while cattle numbers are the lowest in ten years the inventory value is the highest ever. California farmers were getting, on the average, $178.00 for dairy cattle the first of this year as against $155.00 in 1947. The ten year average from 1937-1947 was $88.80. Wisconsin prices were up to $205.00 the first of the year, an increase of $69.00 over the 1945 price of $136.00. Pennsylvania prices at a $206.00 average were nearly a hundred per cent above the 1937-1946 average. New York dairy animals were bringing $210.00 The national average price for dairy cows two years old and older the first of the year was $151.00, very close to a three hundred per cent increase over the $52.70 that marked the low prices of 1936. The 1948 figure represents a $20.00 increase over 1947.

As a counter poise to high labor costs and the heavy labor of dairy farm work, producers have continued to increase the number and types of mechanized units on their farms. Farmers in general have more labor saving machines in operation today than at any other time in history. In the war years farm employment decreased eleven index points while total farm power and machinery slammed upward by 83 index points. These changes resulted in an increase of machinery and power per worker of 30 per cent. At the same time agricultural output increased, in spite of the decrease in farm labor, by eighteen per cent. In the livestock sphere of agriculture it is estimated that 75 per cent of the labor involved is hand labor. Much of this hand labor can be eliminated but to do so means more and better feeding and water conveniences, more mechanization in handling manure, more milking machines, more separators and other types of labor saving equip-

(Please Turn to Page 87)



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FROM THE ADMINISTRATOR'S OFFICE

By Herbert L. Forest

Acting Director, Dairy Branch
Production and Marketing Administration

HERBERT L. FOREST

AT THE PRESENT TIME the prices for milk are determined in thirty marketing areas throughout the country under orders issued pursuant to the Agricultural Marketing Agreement Act of 1937. Approximately 140,000 producers marketing 15,000,000,000 pounds of milk annually, are under the Federal order program for fluid milk. Under most of the orders, the prices for Class I milk (that used primarily for fluid consumption) are based upon formula which relate the Class I prices to the prices for such manufactured dairy products as butter, evaporated milk and nonfat dry milk solids.

Recently a new approach to the problem of pricing fluid milk in the Federal order markets was presented when the Administrator of the Production and Marketing Administration announced his decision to recommend for adoption a new pricing formula for milk marketed under the orders in Boston, Fall River, and Lowell-Lawrence, Massachusetts. The formula, which is now a part of the Federal order for the three markets, was developed by a committee of experts representing all groups interested in the milk marketing and pricing problems of New England. The persons developing the formula were intimately informed concerning the local economic, marketing and pricing conditions for milk in the area which they were studying.

The proposed formula departs in many important respects from the bases which have, heretofore, been employed for fixing milk prices. Instead of basing the milk price upon manufactured milk products, indexes of consumer demand, of the cost of production, and of the general level of prices were employed. A "supply-demand adjustment" based upon the proportion of surplus milk was also provided.

The formula which was proposed evoked widespread interest among farmers, milk dealers, and consumers. After the Boston price committee made its report, interested groups in many other markets under Federal regulation also formed committees for the purpose of examining the structure of milk prices with the view of improving upon the methods which are now in use. Each of the committees is made up of persons with intimate knowledge of the marketing conditions in the area where they are working. Inevitably the work of these committees will lead to suggestions for the improvement of milk pricing in the local areas. Perhaps wholly new methods, different both from the present product based prices and from the Boston indexes, will be suggested. These suggestions will be given the fullest consideration at public hearings called for that purpose.

The changes and improvements which are made as a result of these suggestions will be of real importance in themselves. Of greater and more lasting importance is the fact that a way is being sought by which the aid and advice of experts in milk pricing, with intimate knowledge of local conditions, can be brought to bear more directly upon the problems of milk pricing under the Federal orders. The responsibility for bringing forth methods and procedures for fixing prices under the orders has always rested with the groups in the local markets but the method for assuming and acting upon this responsibility has not always been apparent. The results which are already evident from the work of the several committees points to one practical way to approach the problem of milk pricing under Federal regulation. Moreover, this method maintains the initiative for solving local problems where it should be—firmly in the hands of local people.

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An International View

By **WINTHROP G. BROWN**

Acting Deputy Director,
Office of International Trade Policy

WINTHROP G. BROWN

THE UNITED STATES DAIRY industry has a direct stake in the General Agreement on Tariffs and Trade concluded at Geneva, Switzerland on October 30, 1947, partly because the United States is now on an export basis with respect to dairy products, and partly because the dairy industry is dependent upon general prosperity in this country for a strong market. An expanding world trade helps to maintain prosperity in the United States and thus maintain a good market for dairy products.

United States participation in the recently concluded General Agreement is one step in this Government's policy to insure for American exports future foreign markets free from artificial barriers and restrictions. The United States granted and obtained tariff reductions in this Agreement to expand international trade. Among tariff concessions granted by the United States to other countries are those on milk and cream, butter, and certain cheeses. Because certain concessions apply only to imports in a specific season of the year or to specific quantities, and because certain reductions have been restricted to grades and types which are less directly competitive with the bulk of domestic production, the domestic industry is safeguarded against excessive imports of dairy products at the new lowered duties. The "escape clause" is also an integral part of the General Agreement, under which if it is found after study that as a result of unforeseen developments and of a tariff concession, a product is being imported in such increased quantities and under such conditions as to cause or threaten serious injury to domestic producers, the concession may be withdrawn or modified for such time and to such extent as may be necessary to prevent or remedy such injury.

On the other hand, the United States has obtained concessions from other countries of substantial value to exporters of dairy products. Although United States exports to these countries will be limited in the near future, because of the world shortage of dollars, these duty reductions obtained at Geneva offer considerable possibilities in the long run to our dairy industry. The principal export concessions obtained have been on powdered, condensed and evaporated milk, exports of which in 1947 amounted to more than $145 million. Among the countries granting these concessions were Canada, the United Kingdom, Brazil, Newfoundland, China, Ceylon, India, Pakistan, and Cuba.

Over and above these specific benefits of direct concern to the dairy industry are those which offer increased markets for all types of United States goods, the manufacture or production of which assures prosperity in the United States. When industry is operating at capacity, wage earners purchase large quantities of dairy products. The imports which we have facilitated by our tariff reductions assure repayment for more of our exports.

The European Recovery Program, designed to put the countries of Western Europe on their feet, has an immediate interest for the dairy industry because it calls for significant exports of United States dairy products to Europe.

But both the European Recovery Program and the General Agreement have a deeper significance for every United States citizen. They are two outstanding examples of effective economic cooperation between the United States and countries whose political and economic philosophy is akin to ours. At a time like the present, countries which believe in freedom must come closer together economically as well as politically. We must show the world that our system really works. The practical and effective cooperative action embodied in the European Recovery Plan and the General Agreement are convincing evidence that it can and does.

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Not only this, but EZE PINEAPPLE-ORANGE is a real *dairy* drink; it ties in ideally with present distribution, helps share costs, boosts total sales to all outlets.

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G. G. DIFFENBACK

By **G. G. DIFFENBACK**
Director of Public Relations
Abbotts Dairies, Inc., Philadelphia

HOW the PUBLIC LOOKS at the MILK INDUSTRY

ONCE UPON A TIME, I'm told, milk distributing was a simple kind of business. Milk was plentiful and close at hand. There were no farmer organizations; no herd health control; no laboratories. There were no marketing administrators; no State and City controls; no Government auditing of books and no labor unions—just plain milk—not even Homogenized or Vitamin D. Life was simple and serene for the milkman. His chief concern was to keep his horse well shod and the wheels of his wagon rolling.

But today milk is big business. Big agriculturally; big economically; and big politically. Big and complex and highly organized. It supports an army outside of the farmer and distributor. Not only those who supply the dairy equipment to both, but also the officials in the Bureaus, Boards and Commissions appointed to make life just a little more complex for the milk distributor.

Yes, milk is a very big business. In Pennsylvania alone, some 60,000 farmers are dependent on the milk distributor as a Class 1 milk market for two-thirds of their entire production—the part that pays them the greatest cash return. Those fluid milk sales in 1946 amounted to more than two billion quarts.

But big as the milk business is, it has a "grass roots" character that makes it peculiarly vulnerable to public opinion. It reaches as directly the family of the producer as it does the city consumer or the retail merchants. And because milk is our most widely used food—occupying more than a quarter of the market basket—appearing on the table at every meal—it is pretty constantly in the public eye. Small wonder then that the consumer is so sensitive to its price fluctuations. Small wonder that editors and radio commentators are so ready to highlight the news every time the price of milk moves up a penny.

And because the dealer is in the front line, he most often is blamed for a condition quite beyond his control. And seldom is he praised for his high efficiency in holding price increases in check.

Well, what are the facts about the milk dealer? In most cases he's trying his level best to meet his responsibilities to the farmer, his employees and his customers. He is sincerely attempting to maintain his reputation for a good quality product; to keep his equipment in repair; to hold his customers, and to add a few now and then.

Dealers Have Their Troubles

And increasingly he is cutting and trimming his costs. I doubt whether many other business men are so thoroughly and religiously cost-conscious as the milk distributor. He must be to survive. But who knows it?

He handles one of Nature's most highly perishable foods under exacting and costly sanitary conditions. He renders a doorstep service unsurpassed by other industries and equalled by few. And what other food is subject to such rigorous health and economic controls? Yet, who knows this?

Right now the milk dealer is in a specially tough spot. Constantly rising prices beginning at the farm have upset all seasonal formulas, and increasing farm prices have had to be passed along to the customer. The dealers' own costs have hit new highs. And the public is showing growing signs of a highly sensitive pocketbook nerve.

Out in St. Louis FBI agents have been called in to probe the dairy industry prior to a Grand Jury investigation into milk prices. The releases have all the fearsome sound and fury of a criminal conspiracy. We are told that the U. S. Attorney is being assisted by four special Department of Justice men in presenting evidence. They were sent to St. Louis at the request of the Mayor and the Consumer's Federation. Someone evidently does not think well of the milk dealers there. Yet the facts are that St. Louis distributors are now making daily deliveries, at an increased cost to them of more than 1¼c a quart. They tell me that the present price of milk is not sufficiently high to meet this additional cost.

Grand Jury Activity

And from Washington, D. C., comes the word "a Grand-Jury, probing possible price conspiracies, has subpenaed the records of all leading dairy companies in this city between 1940 and 1947."

Likewise in Chicago a similiar investigation of milk prices is under way. "Subpenas for seventy-five tons of dairy records have been issued," reads the release.

These are signs of a troubled world ahead for the milk distributor. Whatever political flavor these investigations may have, they are primarily the fruits of the present inflationary price trend. If the spiral continues, there will probably be more. And always the immediate result of such publicity, whether or not it is justified, is to cast suspicion on our whole industry.

In the meantime, milk production is declining all over the country, indicating that even at the prices they are receiving, many farmers are losing interest in dairying. Such a condition spells more trouble for the distributor as his supply shrinks.

The Customer's View

So much for the distributor's side of the picture. Now let's look into our crystal ball and see what the customer—our public thinks about us. That crystal ball in modern usage is called a public opinion poll. We made one not so long ago in the milk industry—a cross-section of housewives all over the country. Among other things, it told us the

NOW — spray heating in a small round pasteurizer!

Sentinel Control is an exclusive Cherry-Burrell patented feature.

All the desirable features of a small vat-type machine, including adaptability to Sentinel Controls, are found in the new 200-gallon Round Spray Pasteurizer.

Many of you have asked for this—a 200-gallon round pasteurizer that offers the advantages of the Cherry-Burrell spray heating principle.

So here it is—the new Round Spray Pasteurizer that will be a real asset to those who want a pasteurizer with minimum floor space requirements . . . one that can be equipped with the exclusive Sentinel Control to assure natural flavor and maximum cream layer . . . low bacteria count and absence of "burn-on" . . . and finally, low-cost, long-lived service.

The Cherry-Burrell spray heating principle utilizes a large volume of low temperature heating water, sprayed over the entire outer surfaces of the inner lining of the vat to accomplish quick, uniform pasteurization without scorching, without burning. Ask your Cherry-Burrell Representative about this new, widely adaptable pasteurizer.

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profit your average customer thinks you make on a quart of milk. What do you think it was? On an average she thinks it's a whole nickel on every quart. She thinks you take the cream right off the top of the bottle. Oh, yes, some thought you made only a cent, others 2 cents, and up to 9 cents; but the average profit conception of all the 2580 housewives interviewed was 5c.

Housewife No Economist

Now we must bear in mind that the housewife is not an economist—nor does she understand the difference between gross and net profit. And maybe she has an intuitive sense that the service you render is worth as much as she thinks it costs her. Otherwise we would certainly have more active resistance from her. But so long as such a gross misunderstanding on profits exists, there is fertile ground for trouble.

Now contrast this misconception with the real facts about our profits. While in your particular case they may be somewhat higher, the average profit of 244 milk distributors in 37 states during 1944, was less than 1/3 of a cent a quart. And, bringing it still closer to home, the report of the Pennsylvania Milk Control Commission for 1946 shows a net profit after taxes, for 594 fluid milk dealers in Pennsylvania, of 2.82%. That's a small fraction of a cent a quart. But again, who knows it? Your producers, your employees, your customers, your neighbors?

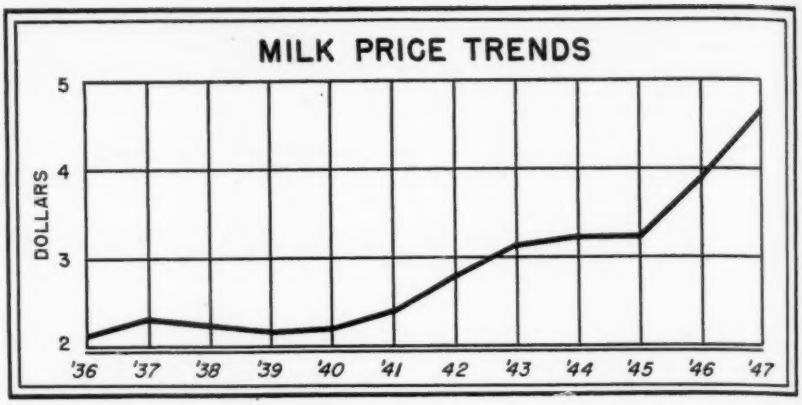
Another question we asked was whether the customer thought the price of milk too high. Thirty-seven per cent said yes, it was too high.

Well, there you have the public impression about the efficiency of our business. What can we do about it? A good many things. And all over the country there is an awakening in our industry to the importance of acquainting the public with our business.

Here we are offering the greatest food bargain available today—nutritionally and economically. Yet we are forced to go on the defensive to explain "the high price of milk." And this, while other foods have risen an average of 30% higher than milk. And all the while we are sharpening our pencils to eke out every possible economy to keep milk on the low price shelf. Strange how little we hear about the high price of bread or fruits or eggs.

Building Good Relations

What can we do? Well, here are some of the public relations activities already in practice by many dairies. You can apply some of them in your own community. They should help to give the public a better understanding of



your industry and your business; a greater appreciation of the job you are doing to bring them Nature's most important of all foods—safely, dependably and efficiently.

First, let's take the producer. Let's cooperate with him as partners should. And both partners in this great milk industry of ours should enjoy a mutual knowledge of each other's problems. Today, with shrinking milk supplies and competition for sources, more study of the farm situation is being made by distributors. In many sections, an earnest attempt is being made to help the farmer to produce more and better milk; to teach him short cuts to production; and through encouragement of 4-H Clubs and Future Farmers, to interest the new generation to stay on the farm.

Some distributors are broadening the training of their field men so that they may offer the producers practical suggestions on such subjects as pasture improvement, fly control, quick milking methods and the like.

And selecting field men who are friendly and cooperative is particularly important. One large Eastern distributor said to me not long ago: "We pick our men for their ability to get along with the farmer. That, in our opinion, is far more important than mere technical knowledge."

Bulletins For Producers

A number of distributors are printing bulletins or even magazines for their producers. These are geared to local conditions and reflect the dairy's policies. If carefully edited and really informative, they are very well received and read, and the suggestion acted upon.

Production films are available and can be shown effectively to farm groups and to vocational students. Such a film, on the subject of quality milk production, has recently been offered to its members by the Milk Industry Foundation. Your producers would benefit by the clear, simple methods for better production technique which it pictures. He will be favorably impressed by your efforts on his behalf. And you should benefit by an improved milk supply.

Keep your producers informed about your own activities. Write him a frank, friendly letter once in a while. Show him you are sympathetic to his situation; and don't hesitate to tell him about your own. Let him know how narrow is the margin of profit on which you work. Partners in business need to know all about this business of ours.

As Dr. K. G. Weckel, of Wisconsin University, stated the other day: "Dealers must give more thought to making it easier for the farmer to produce milk so that more thought can be given to producing *quality* milk."

Results Are Gratifying

And how about some recognition of long time association? You keep a record of your producers' period of supply. Why not at intervals write them a letter telling them how much you have enjoyed the association?

Not long ago we awarded a "Certificate of Achievement" to our Grade "A" producers who have been supplying us for a period of years. I would like to read from a letter received just a few days ago from one of them:

> "I am proud to possess this award, which is hung where it will be a constant reminder of the pleasant relationship existing between us, as dealer and producer.
>
> "Need I state that I always strive to maintain the high quality which you expect? It is good to know of your appreciation of my efforts.
>
> "Again, I express genuine thankfulness."

This is the sort of warm human relationship that makes business life a little sweeter for all of us. It is well worth cultivating.

Sometime a little thoughtful touch helps in this direction. Our field men regularly send a Christmas card to each patron on whom they call. You would

In Dairy Cleaning Operations you have to
Face the Facts
At least, don't turn your back to the *main* fact—that every dairy plant has different water, equipment and load conditions, and no single cleaning formula fits them all! For best results, DIAMOND *Engineered* Cleaning is the answer . . . accurate laboratory analysis of your individual needs, leading to the selection of the proper cleaning compound (or special blend) that will give you most efficient and economical operation. Investigate this service, *now*, through the DIAMOND distributor in your area—there's advantage in it for you.
DIAMOND ALKALI COMPANY
Cleveland 14, Ohio, and Everywhere
ALKALI
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ENGINEERED PRODUCTS for the DAIRY INDUSTRY

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MONROE DAIRY MACHINERY, INC. · DAIRY SUPPLIES LIMITED
in 50 Principal Cities of the U. S. A. and Canada

be surprised how many comments they get from this friendly greeting.

Friendliness is built on mutual understanding. It lubricates the business axle, and replaces friction with trust and confidence.

So much for our producer relations. Now lets take a look at the community in which we live and move, and in which our products are sold.

Suppose we begin with the members of our own organization. Each of our employees is out on the firing line every day. Because they are in the dairy business it is assumed that they know all the answers. I have no doubt that you keep them properly and constantly informed as to the reasons behind price changes, and that they know something of the very small margin of profit on which the distributor works. Before we start to inform the consumers let us be sure that our own people first have the full benefit of all such information.

Instill in them a proper pride in their company's business; and an interest and enthusiasm in their company and its relation to the public. Every enthusiastic employee in our business will be a valuable salesman. And enthusiasm is generated by a sound knowledge of the facts.

Salesmen Are Important

So far as our own customers are concerned, our salesman is our ambassador of good will. In most cases he *is* our company. For that reason he should be well informed about the industry and the business.

He should know the facts about general price trends, and in particular the factual reasons for price fluctuations of milk and other dairy products. Especially right now he should know the reasons for the much criticized gyrations of the butter market, even though you may not yourself sell butter. For adverse thinking about any dairy product hurts all of them.

The center of public influence in your town is the editor of your local paper and the commentator of your local radio station, if you have one. Both are deeply interested in your product and business, and both need to know a great deal about the economies of milk production and distribution. Why not take them out to lunch once in a while and tell them what is new in the dairy world? Invite them to visit your plant and see how you operate.

You can, of course, reach organized groups of people such as women's clubs, men's luncheon clubs and your school children through the use of motion pictures. Both the Dairy Council and the Milk Industry Foundation have prepared outstanding dairy films. One just produced by the Milk Industry Foundation —"Milk Parade"—is the complete story about your own dairy operation.

Your school may have its own projection equipment and if so, it will be simple to arrange to have the film shown. Or if not, by a cooperative effort with the other milk dealers in town, a projectionist can be secured.

Experience in Philadelphia

In Philadelphia we have a standing public relations committee set up among the dealers, so that we can all cooperate in his activity. Once a year we arrange for a press luncheon, where the newspaper and radio representatives are invited to ask questions of the industry representatives. Both producers and distributors are represented. The good-will results of this friendly meeting last throughout the year. This luncheon is one of our regular June Dairy Month activities, and is something that could be staged in almost every town, even if there is only one newspaper.

Or suppose that during June of each year your distributor group arranges a dairy luncheon or dinner, with a qualified speaker presenting some phase of the dairy industry. He may be someone from the Department of Agriculture at Harrisburg, or possibly your own Director of Health, but in any case be sure that he has name value and can be depended upon to speak constructively. In addition to members of the press you might invite the Mayor, members of your Board of Health, presidents of women's clubs and men's service clubs, Parent-Teacher Association members, heads of your school staff, union leaders if any, and other group leaders. If the meeting is properly staged and publicized, the results will richly repay your efforts.

WHAT BECOMES OF THE MILK DISTRIBUTOR'S DOLLAR

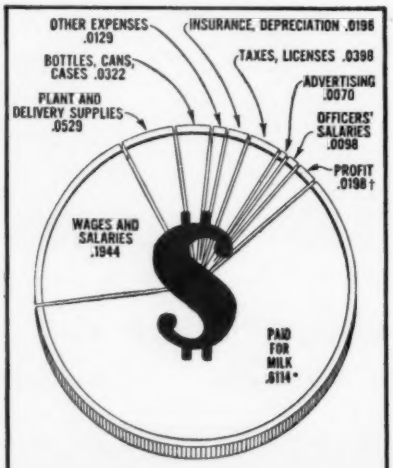

Chart shows operating results of 244 milk distributing companies in 37 states and the District of Columbia with combined sales of $583,127,886 in 1944. Averages are from figures submitted to the Indiana University School of Business for the Milk Industry Foundation.

* Cost of whole milk purchased from farmers, including transportation to processing plants, and cost of other products, i.e., sweet and sour cream, skim milk, etc., purchased for manufacture of dairy products or for resale.

† Per quart this is less than 1/3 of a cent.

The members of your service clubs are generally alert to changing events in the milk industry, and are always interested in what you have to say. Why not volunteer to appear before them now and then for an informal talk on your industry? The Milk Industry Foundation's pocket piece "Milk Facts," is packed with up-to-date information about every phase of the dairy business, and answers practically every question that anyone asks.

It will cost you very little to distribute a copy of this to members of selected influential groups. Particularly valuable is the pie chart showing what becomes of the milk distributor's dollar.

One of the most outstanding community efforts in developing a better public understanding is that done by Mr. Daniel S. Adams, President and General Manager of the St. Lawrence Dairy Company, Reading Pa. (*American Milk Review*, Dec., 1947, p. 32) There is no doubt that as a result of his frank analysis of his business, Reading people are pretty well informed as to how the Consumer's milk dollar is divided, and what a small percentage of it remains in the hands of the milk distributor. In this case he has taken paid newspaper space to tell the facts, and also sent copies to his customers to make sure they read his message. He has likewise done a great service to the industry in this program.

Program Should Be Continuous

A program to build good-will in your community is not a campaign. It should be as continuous and as active as your own business. New families are coming into town. New generations are growing up, making homes and raising children; new customers to ask the same old questions that only you can answer.

As purveyors of Nature's most vital food, let us hold our heads high with conscious pride in the general industry to which we belong; pride in the key part we play in the dairy farmer's prosperity, and in the health and well being we help bring to the city consumer.

And while modesty is a great virtue, let us not entirely hide our achievements under a bushel. We are rendering to the families of your community a vital service equalled by few, if any. Let us tell them about our industry; about our

(Please Turn to Page 75)

SURPLUS MILK WON'T WAIT!

ORDER A

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CHEESE VAT

With Stainless Steel Lining, for Immediate Shipment From Stock

A specialized Vat for Processing Pressed, Cottage or Cream Cheese. Available in 50, 100, 200, 300 and 500 gallon sizes. Boilerplate steel outer body, porcelain lined outlet valve.

GIRTON

Ask your **DEALER**

THE Best Dealers SELL Girton EQUIPMENT

GIRTON MANUFACTURING CO.

MILLVILLE, PENNSYLVANIA

XUM

Butter

by GORDON URNER
Editor, American Butter Review

FROM A POSITION of dominance in the dairy scene the creamery butter branch has, since the start of World War II, been pushed squarely behind the 8-ball. And I mean so close up as to be kissing.

Before the latest—and we all fervently hope the last—worldwide armed conflagration the butter phase of the dairy industry was accentuated to a tremendous degree. Domestic production rose to the neighborhood of 2,000,000,000 pounds annually, resulting in a per capita consumption of around 18 pounds.

Things happened. Lend-lease demand started the ball rolling, and its acceleration was speeded by our actual entry into the fighting phase of the war. Other types of concentrated milks—dried and evaporated—took the center of the stage, together with a hugely expanded outlet for fluid milk.

Butter production was cut—through these and a number of other causes—to less than 1,400,000,000 pounds per year, with a drop in per capita consumption to a recent low range of 10.3 to 10.8 pounds.

The make of butter has continued low in the post-war period. Other outlets have attracted an increasing proportion of a milk flow decreasing at an alarming rate. Sharp inroads have been made by competing products,—lead expandingly by margarine. And while consumer educational and publicity programs on butter have been built tremendously by the American Dairy Association and the National Dairy Council, these agencies have had at their disposal funds pitifully small to service adequately a four-billion dollar industry.

Under all existing conditions, the immediate outlook for butter sales volume seems dim. As it appears now, an increasing percentage of our decreased milk flow will continue to be attracted into other outlets.

Because of the paucity of the supply, butter prices at the present and prospective retail levels will undoubtedly push more and more consumers to substitutes, —again lead by margarine,—while the overall industry expenditures on butter advertising would be laughed at by the producers and merchandisers of cranberries, raisins and walnuts.

Directly competing foods are accelerating their efforts to bid for a larger place in the market basket of those who cater to the appetites of our 145,000,000 populace. It is high time that the butter industry took a leading part in this race.

Dry Milk

by ROUD McCANN
Director, American Dry Milk Institute, Inc.

STRONG DEMAND for market milk tends to maintain all manufactured milk products in a sound position. The place of manufactured milk products is further strengthened by overseas needs in such general rehabilitation plans as that generally understood to be carried under the Marshall Plan. With care on the part of those who manufacture and those who buy and distribute, to make and use only those products of highest quality, there is opportunity for much constructive development work. The final results of this production and distribution will be measured in good part by how well the job is done during this period of rehabilitation.

Dry milks, being the most concentrated of milk products, carry a wide range of usage in adaptation from the warmest to the coldest regions in that refrigeration is not required and injury by freezing is not a risk.

Whenever surpluses begin mounting in other divisions of the dairy industry then burdensome surpluses may be expected to mount in the dry milk division. Fortunately, dry milks offer an advantageous way of bringing the dairy farms of America closer to all who are in need of good milk products supplies.

Bulk Condensed Milk

by H. C. DARGER
Executive Director, American Bulk Condensed Milk Association

THE PRESENT rather unfavorable relationship between open market prices for bulk condensed milk as compared to prices of other dairy products has had a very depressing effect on the condensed milk industry. Many exclusive bulk condensed milk plants have been or are being equipped to manufacture dry milk, ice cream mix or other dairy products, in order to provide more flexible operations.

Normally non fat milk solids produced in excess of the demands for plain condensed milk would be converted into sweetened condensed milk for preservation for future use. However, the large supplies of sweetened condensed milk hanging so heavily over the market dur-

ing the past few months, have depressed prices to such an extent that many sales of the fresh product must be handled at an actual loss. The installation of drying equipment makes it possible to convert excess skim milk into dry skim, which can be stored with greater safety from the standpoint of both quality and price, than sweetened condensed milk. The present dry milk export situation is providing available markets without necessity of storing.

Unfortunately too much of the sweetened condensed milk in storage has been of rather poor quality. The necessity of moving poor quality products has forced reduction in prices that have been extremely detrimental to the industry.

Although there is probably some rather poor quality storage sweetened condensed still floating around on the market, it is my opinion that most of the poor but saleable product has been cleaned up. There is no doubt, however, that there is a considerable quantity which is so poor that it is not saleable for human consumption.

Plants which are manufacturing high grade products, both plain and sweetened, for specific customers or specific outlets, are able to make sales at prices based on current values of dry non fat milk solids and butter fat in sweet cream.

Although the American Bulk Condensed Milk Association will probably discontinue to function after May 1, I believe that during its rather short life it has at least aroused an industry consciousness that standards of composition and of quality are absolutely necessary for maintenance of present markets and the development of new markets. I hope that there will never again be a time when condensed milk will be sold on the basis of its sugar content rather than its value for the incorporation of a fine dairy flavor, nutritious milk solids and texture building qualities in other food products.

Although the Directors of the A.B.C.M.A. feel that present conditions do not warrant the continuation of the Association, they are not so sure that in due time there will not be a need for an organized industry as such, or as a part of some other Association. Time will tell.

●

Cheese

by JOHN H. KRAFT

President, Kraft Foods Company

IN THE KRAFT ORGANIZATION, we have a deep and firm conviction that the cheese industry has built a firm foundation for a great future. We are quite definitely optimistic about the future, in a belief that the industry will grow; that greater demand will be built for all types of cheese and that for those who adhere to quality and use research exhaustively the future is bright.

Cheese consumption since the war has reached to a new high of more than seven pounds per capita in the United States. Cheddar cheese alone has exceeded by 75% the previous per capita consumption of all types of cheese in this country.

There is no reason to believe the demand will lessen. The American consumer has learned to appreciate the great food value of cheese, along with other dairy products. With vigorous merchandising by the industry and with new and better methods of point of sale promotion and display, we can use our new level of consumption as the starting point for a still greater demand—IF!

If we hold rigidly to our first line of strength—quality. The industry has made great strides forward in its quality program, but it must make more. I should like to see the time when there never would be a single pound of cheese produced which graded lower than No. 1. Top quality cheese not only sells, it brings the same consumer back for more.

Safeguarding quality starts on the farm and it is the duty of every cheese factory operator to help hold milk quality higher on the farm. He must work with his farmer-suppliers, assist them in every way he can in building quality.

In the factory, in the distributing system, and at the retail counters the cheese industry must help guard every step to insure that the best and only the best cheese reaches the consumer.

Research has done much and can do still more to build markets for the future. Improvement in production systems, through research, will aid the quality program. Improvement of established products has been accomplished by research, and more can be done. Better packages have been produced and more will be produced, by research.

Further research is going ahead on new products and new ways to use more fractions of milk so as to give more food value to the consumer and permit returning more to the producers of milk.

Better distributing systems are being established, guaranteeing more rapid, more efficient delivery of all types of cheese to food distributors. Better machinery for plant operations and new findings in every other part of our production and distributing systems are available or being developed, through research.

A greater population knowing more about the value of dairy products is the basis for expanded operations. Combined with all the improvements noted above, Kraft cannot but be optimistic about the future of the cheese industry.

GORDON URNER

ROUD McCANN

H. C. DARGER

JOHN H. KRAFT

Everybody in the Dairy Industry

YEAR 'ROUND ADA MERCHANDISING PROMOTIONS FOR '48-'49

Sales-promotion activity spearheaded by magazine and express truck poster advertising every month of the year. Getting results for you. Getting extra results from related food promotion and retail store follow through. Here's the tentative lineup for ADA promotion for the complete 1948-49 fiscal year.

SEPTEMBER '48
"Better Breakfasts"
(Milk and Cream)

OCTOBER '48
"Cheese Festival"
(Cheese)

NOVEMBER '48
"Pumpkin Pie Time"
(Evaporated Milk)

DECEMBER '48
"Holiday Treats"
(Butter)

JANUARY '49
"20th Century Miracle"
(Dry Milk)

FEBRUARY '49
"1,001 Treats"
(Evaporated Milk)

MARCH '49
"Lenten Dishes"
(Cheese)

APRIL '49
"Bread 'n' Butter"
(Butter)

MAY '49
"Pour on the Cream"
(Cream)

JUNE '49
"Ice Cream and Cake"
(Ice Cream)

JULY '49
"Garden Goodness"
(Butter)

AUGUST '49
"Invitingly Yours"
(Milk)

Act with ADA in JUNE

Takes ADA ACTION in JUNE!

Every month . . . January through December . . . 12 months of the year . . .

Every month with millions of business-building messages to help you "Say it with Sales." . . .

This is your American Dairy Association program—your industry's program to build better and more profitable markets for Butter . . . Cheese . . . Milk . . . Cream . . . Ice Cream . . . Evaporated Milk . . . Dry Milk.

It gets results . . . through colorful, sales-creating advertising in national magazines, newspapers and outdoor express posters . . . through merchandising at the point-of-sale . . . through related food contacts and publicity . . . through research. In all these ways it helps you "Say it with Sales."

This is the kind of program that does much, yet costs little. It gives 12 for 1 results in two ways—$12 in expenditure by others for every $1 invested by ADA, as well as 12 months of program for the one month set-aside in June! The Dairy Industry needs this program. You want it. The ADA program is your way to "Say it with Sales!"

SET-ASIDE FOR ADA IN JUNE!

DO IT THIS WAY

To make it easier for you to do your part, the ADA state organization is providing posters for your plant . . . literature for your producers . . . every help it can give you! Here's what you do—

1 Put Up the ADA "Say it with Sales" Campaign Posters at Your Plant.

2 Before June Set-Aside Period, Send ADA Folders to All Your Patrons.

3 Make the ADA Advertising Set-Aside on All Patrons Through 30 Days in June!

In most states, the set-aside is being made at the rate of one cent per pound of butterfat (or its equivalent) marketed June 1-30—thirty days only!

Year 'Round Sales Action

THE NORTHEAST EXPANDS

By ALFRED A. BROWN
Research Professor of Marketing
University of Massachusetts

HORACE GREELEY'S FAMOUS SLOGAN "Go West, young man, Go West! reflects the action if not the spirit of Northeast milk handlers during recent days.

The increase in consumption, particularly in New England and New York, that began in the early forties rapidly overhauled existing old line supplies available in the short months. The industry's first reaction was voluntary rationing to tide it over the difficult period in the fall of '43. The situation was not so tight in the fall of '44 but there were indications that the relief was temporary and that unless demand eased, the customary source of supply would be insufficient. Some elements in the industry began laying their plans accordingly and in the fall of '45 a substantial volume of fluid milk moved eastward, especially from Wisconsin and Minnesota. The movement continued in '46 and '47 with a substantial portion of the milk in the latter year out of Ohio. The short season just passed proved to be the longest of them all.

Milk so brought into the Boston Market has been known as "Emergency" supplies. Emergencies, however, have a way of becoming permanent. The adaptation is apt to grow on us so that what appeared unusual or even undesirable may become common and familiar. The adaptation is especially facilitated if no other device exists. Certainly the ready acceptance of western milk for so long a period by local health authorities indicates a changed attitude. Certainly the apparent indifference of local producers to this infiltration of their market suggests an attitude of live and let-live.

Will Harmony Last?

Peace prevails because no one has been hurt. Can it last? The answer lies in the circumstances that brought about the present conditions. The major ones were:

1. Increased consumption of milk which resulted from full employment at high wages.

2. Limitations that high costs placed on production within existing sheds.

3. Limitations placed by public authorities on existing milksheds. (Health authorities reluctant to approve new sources of supply; market administrators reluctant to permit diversion of supplies to other markets.)

4. Uncertainties that prevailed among producers as to the permanency of the increased consumption. (Would the increase hold when other foods became more readily available and milk prices approached "competitive" levels?)

5. The heavy demands placed on the grain supply for direct use as food as well as the comparatively high values returned from some livestock feeding operations.

Little change is in prospect in the immediate future. Full employment, high production costs, and a general scarcity of food and feed are still with us. The uncertainty that producers have about the permanency of increased consumption is being dispelled by regular monthly reports showing sustained Class I usage. Several additional questions will help develop our perspective.

Nature of Expansion is Question

Should and will production expand within the "natural" milksheds of the Northeast? Should and will the boundaries of the various milksheds be taken out of their straightjackets and be allowed to follow the mold of economic forces? Should and will handlers rely on Western sources for a supplemental seasonal supply? Should and will Western suppliers be content to take up the slack in the short months without attempting to hold some of the fluid market during the rest of the year? Should and will local handlers attempt to build up year-round supplies from the West now that the argument against quality has been pretty well disposed of and local dairymen have indicated an inability to turn out sufficient volume to meet market requirements.

Increased production within eastern milksheds is desirable and possible. Barring too much temporary relief from palliative price schemes, the combined force of high labor and high feed costs may be the necessary incentive to greater output per cow, per acre, and per man.

There is ample opportunity for increased production per cow through careful selection and breeding. If this is combined with a good roughage program—good pasture and good hay well-cured—an increased output in milk is possible. With the same number of cows and acres turning out more, the output per man has to increase. This approach minimizes the burden of high labor and purchased feed costs. It places no strain on existing barn capacity. It is a challenge to managerial skill. It may, however, be too slow a process.

Adjustment of Boundaries

Adjustment of milkshed boundaries is a logical alternative or supplement to more intensive dairying. Two forces have delayed the utilization of this method. Producers or their associations, have been reluctant to add contiguous territory; the fears of the adjacent, overcoming the fears of the remote. Like death and taxes there is a permanency to newly added territory. Some milk-market officials and the portion of the industry to which they are responsible have discouraged encroachments which would further reduce already insufficient supplies in particular sheds.

The ultimate alternative has been then to bridge adjacent territory; to cross-over into areas where milk supplies were available. Circumstances precluded a reduction in offerings to consumers. The consequences of acknowledging an inadequate supply were apparently less palatable – even to nearby producers – than bringing in or admitting "western" milk. The whole program of public control over marketing is based on "providing an adequate supply" and the test of adequacy comes in time of crisis. Had the programs failed, or may it be argued with plausibility that the program of the decade prior to the appearance of shortages minimized their severity?

The aggressiveness of handlers in seeking supplies, combined with their willingness to absorb the premiums paid on Western milk, went far towards keeping the situation in hand. It is doubtful, however, whether the industry can expect to continue for long under such temporary arrangements.

Handlers in the territory, especially those owning country plants, have a common interest with producers in developing more intensive dairy farming in the area. The dealer whose sole investment is in city plants has less tangible ties with the Northeast dairyman and the buffeting which he has received in recent years may have encouraged fond notions regarding "Dairyland" milk. The dealer with a stake in the country, however, will think twice and take a long view before he lends to much encouragement to year-round arrangements with the Lake States.

Past PERFORMANCE means Future PROFITS

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DOUBLE EFFECT EVAPORATORS

When you plan — plan for profits . . . specify the Buflovak Double Effect Evaporator. Base your decision on sound ground . . . on the reputation Buflovak has gained for dependable, quality building, profitable performance in scores of creamery products plants.

Yes, concentrated milk plant operators have discovered that the installation of Buflovak Equipment is an investment in quality assurance and profit. The Buflovak Double Effect Evaporator produces sales stimulating condensed and evaporated milks that ALWAYS possess rich natural flavor, inviting color and uniform texture. Best of all, Buflovak produces competition defying quality at low cost. "On the job" tests have proved 99.9+% solids recovery, 50% savings in steam and cooling water, and all 'round economy in time and labor through simplified sanitation. It all adds up to this: Buflovak gives you the greatest return per dollar invested.

THE Buflovak ROLLER DRYER

Profit in flexibility. Be prepared to meet any conceivable market demand by supplementing your Double-Effect Evaporator with a low cost, efficient Buflovak Roller Dryer for drying whole milk, skim milk and buttermilk.

BUFLOVAK EQUIPMENT DIVISION
OF BLAW KNOX COMPANY

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295 Madison Avenue, New York 17 1636 Monadnock Bldg. Chicago 4
2217 Olive Street, St. Louis 3 1706 Broadway Oakland 12, Cal.

THE SOUTH IS ON THE MARCH

By **CLARA H. RUTLEDGE**

Tf THIRTY-ODD YEARS ago the boll Tf weevil struck at the heart of Tf Southern Agriculture. For years leaders had preached diversification but, with a labor force trained only in the production of cotton and a credit system that recognized cotton as the only collateral, little had been accomplished. The weevil, sweeping up from Mexico, spread ruin in the cotton fields and panic throughout the South. What appeared to be a calamity, however, has proved to be a blessing. The weevil jogged the South into action.

Improved methods of raising cotton were developed, and more quickly maturing varieties were introduced. In some areas farmers turned to trucking, in others to peanuts or corn, and over much of the South there was experimentation with cattle. Florida, with its great areas of undeveloped land had already begun to compete with Texas as a beef raising state and today, the Florida cowboy is as typical, although unadvertised, as the bathing beauty.

Wars Were Factors

World War I introduced another factor. Industry offered new opportunities to rural populations and there was a tremendous shift from the cotton fields to Northern factories. In spite of poor housing and climatic difficulties the movement has continued and, greatly accelerated during World War II, has left the South a farm labor supply which is neither as plentiful nor as cheap as it once was. The first war also brought in efforts at control of the quality in the production of milk. This was largely the result of army endeavors to safeguard the men in its Southern camps.

The production of beef cattle and even dairying take few hands as compared to cotton farming. In this area where, at one time, the Negro population was thickest, the movement toward dairying has been most pronounced. Whether cause or effect it is hard to say, but at about the same time that there came a rise in the standard of living there came also an increased demand for milk and an interest in improved stock. The work of the farm bureaus and of the agricultural colleges, the passage of the Smith-Hughes Bill putting vocational agriculture into the schools, the training given by the 4H Clubs and the Future Farmers of America all played an important, if not a decisive part, in the development of the dairy industry in the South. Nor to be discounted are the training schools held by feed companies, the Jersey heifer clubs sponsored by stores, and farm development, the programs pursued by many milk plants.

Only Thirty Years Ago

Thirty years ago few areas in the South had stock laws or health regulations of any kind. Cattle were turned into the fields and woods to roam as they pleased. The animals were tick infested, subject to Bangs and other diseases. When fine grades of cattle were brought in they quickly died or failed to reproduce. When the Federal government introduced dipping for tick control there was general resistance. In one county thirty concrete vats were dynamited over a weekend! However, progress was made. State and local laws, passed and enforced, made the country safe for fine cattle as well as for milk consumers. With regulations making possible improved stock the industry could safely expand. During the last twenty years the twelve southern states have increased their milk production from 15,720,000,000 to 19,299,000,000 lbs. The greatest percent of increase has taken place in Texas, North Carolina, Tennessee and Alabama.

Development of marketing facilities, of health and other regulations have differed from state to state. Although it is the only state in the union which has a health unit established in every county, Alabama can be taken as fairly typical. The Health Department was organized in 1923. Soon after, a milk code based on the United States Public Health Service code, was adopted. This was not a state law but applied only in those counties and municipalities which desired to cooperate and incorporated the code into local laws.

The South's love for self government, expressed in its demand for state's rights, carries into its local government and gives great autonomy to county and municipal units. At present thirty-nine of the sixty-five counties in Alabama operate under the code and the remaining 26 have codes of their own. The latter counties have no cities, and little or no dairying.

Control Board Named

In 1935 the legislature established a temporary milk control board which became permanent in 1939. Its function was to define milk sheds, systematize regulations, fix prices, and simplify licensing. This board is appointed by the governor and is composed of one person who is a wholesale producer, one who is a distributor, one who is a producer-distributor, one who is a consumer, and one member at large who is not engaged in the production, distribution or sale of milk in any way.

The board may employ an attorney or any other personnel it may need. It may call on any law enforcement officer of the state or counties to help carry out its rulings. This Milk Control Board will, it is expected, prevent the practices which in the late twenties caused an unstable market and so discouraged the dairy farmers that for a time there was a marked decline in production.

Small Herds Are Rule

Most of the milk in the state comes from farms having one to three cows. Statistics are hard to obtain but the State Department of Agriculture reports an increase between 1940 and 1947 of 60,000 milk cows, there having been a slight decrease during the last two years, due to decreased consumption caused by increased prices. In 1946, according to the Milk Industry Foundation, 639,000,000 quarts of milk, were produced in

DO THEY CACKLE?

WHEN DR. V. A. RICE, University of Massachusetts, told Maine cattlemen at the annual meeting that cows could become egg producers, the audience laughed.

They stopped laughing, however, when he told them of research which is developing a system whereby eggs could be removed from mature cows, fertilized artificially through the use of the "very best bull obtainable", and then transplanted into a "nurse cow" which would produce the offspring.

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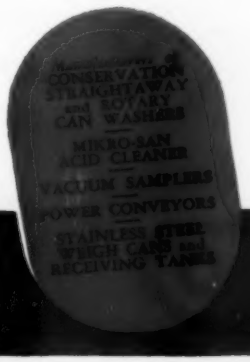
The Veri-Low Unit with platform scale. Many features of design and construction are exclusive and covered by L-P patents.



SALES AND SERVICE THROUGHOUT THE NATION

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Alabama, an average of 1558 quarts per cow and valued as a cash income at $19,095,000.

The great advantage which the South holds over the rest of the country is, of course, in the possibility of holding the cows on pasture for the greater part of the year. In Alabama the farm development forces are intent on finding grasses which are perennial and which will make grazing possible for the entire year. Much experimentation is taking place both on individual farms and at the experiment stations. Indications are that fesque will furnish all winter grazing. It is disease and drouth resistant and reseeds itself—the dream of the hopeful dairyman. Meanwhile the present pasturage is primarily dallas grass, caley pea, lespedeza, white dutch and crimson clover. Bahia is popular in the sandy loam areas.

Tenancy is High

Farm tenancy is high in Alabama. In some counties, and these are the ones most adapted to pasturage, it is as high as seventy-five percent. Tenancy laws have been made by the land owning groups and are not calculated to improve the land nor to encourage the care of buildings (all improvements belong to the landlord). Land has run down and food grown on it does not furnish the same elements which could be obtained from richer soils. When a man may have to move on short order there is little incentive for long term planning. This is one of the fundamental difficulties to be faced in developing agriculture in the state and throughout the whole South—especially in such a specialized branch as dairying. However, the trend over the past few years has been both toward larger farms and operator ownership. Tenancy in Alabama was 57% in 1920 but dropped to 47% by 1945.

If It's Not One Thing—

Next to the human element is the continued fight which must be made against insects and disease. With no killing winter cold there can be no relaxation in vigilance. In balancing the advantages of one region against another, the time, energy and expense of this everlasting fight must be taken into consideration.

The small number of cows per farm presents another difficulty in building up the quality of herds. A farmer owning only three or four animals cannot afford a first class breeding schedule. This difficulty is being met through a state wide program of artificial insemination, sponsored by the State Polytechnic Institute at Auburn which owns a herd of blooded stock. The program is meeting with considerable success in this area.

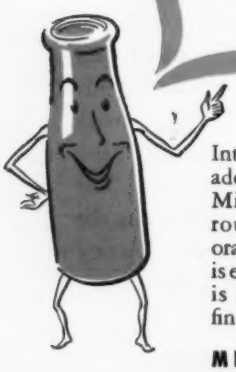
Another important factor has been the development of good roads. It is hard now to believe that travel was as difficult as it was in the early twenties. Milk collection was practically impossible. Even today there are thousands of farmers whose homes cannot be reached by car in wet weather. The present construction of rural roads due to the Federal Farm to Market program and state aid to county roads opens up market possibilities hitherto closed to the back country farmer.

Promising Future

For the future there seems to be every reason to expect further development of the industry. A growing population, especially in the cities, a rising standard of living, and a cotton economy, which while uncertain of its future markets, is rapidly being mechanized and releasing labor.

What is needed for healthy development is careful planning of plant type and location(simultaneous development of the farmer and of the market, a systemizing of federal, state and local regulations, and a steady education of all concerned to the realization that no one party in the industry can benefit, in the long run, at the expense of any other.

MORE *Profits* PER STOP



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WHAT ABOUT EQUIPMENT

By **ROBERT LORREY**
Christian Petersen & Son Co.

SUPPLIES OF DAIRY EQUIPMENT have shown a steady improvement during the past six months. Most types of equipment can now be obtained in 30 to 60 days. However, there are some manufactured items such as soaker bottle washers, bottle fillers, capping machines, paper bottle machines, boilers and milk cans which are not readily available. Deliveries on these items vary from four to twelve months.

The trend on prices is still upward. The third round of wage increases in the steel and railroad industries will further increase costs. Increases in freight rates are adding substantially to costs of such bulk items as your bottles and paper products. Sales in dairy equipment in 1948 will show a slight decrease as compared with the year 1947. Nineteen forty-seven was an exceptionally good year for the Dairy Supply business because of the shortages which existed in the Dairy Industry as a direct result of the war years.

Need Increased Production

The only factor which can aid in lowering machinery and supply costs at the present time is increased production. This is especially true in the steel and paper industries. The "grey market" which exists in steel today is the result of the tremendous demand in relation to production. The false value which is thereby established for steel is passed on to the buyer of dairy equipment. A similar "grey market" exists in the paper industry which is affecting the price of paper caps and paper bottles. The price for aluminum has shown a decrease. This has resulted from the tremendous aluminum production and the decreased demand for aluminum by the airplane industry. At least another year of steady production in the steel and paper industries will be required to decrease the costs of these products. The longer the soft coal strike continues, the longer it will be before steel prices will decline. The renewal of the rearmament program will also serve to continue the high prices.

Profits in the Dairy Industry have shown a steady decline since 1945. This has resulted from increases in cost of labor and materials to the dealer, while his spread has shown little or no increase during the same period. In addition, dealers' collections are slowing up, which ties in with the low consumer salaries as compared with inflationary prices. The result is that efficient, labor saving machiney is being purchased by the dealer to offset his narrowing margin of profits. There is also much worn-out equipment to be replaced. Second-hand dairy equipment is also moving well at fair prices because of the high costs of new equipment.

Trend Toward Larger Types

The trend in the Dairy Industry is towards the larger type of machinery. Small dealers are selling out to the larger companies and few new dealers are entering the Dairy business. Sales of new equipment will be retarded somewhat this year until after the National Dairy Show in Atlantic City. Because little has appeared in the way of new machinery since before the war, many dealers will delay purchases in order to buy the latest and most efficient types of new equipment.

Sheet steel and galvanized metal will be most seriously affected by the soft coal strike. Stainless steel is not apt to be affected as seriously. A shortage of sheet steel will affect the manufacture of milk cans and bottle crates and may create a difficult situation during the critical flush period of May and June and the increased consumer summer business.

Considerable interest is being revived in paper bottles. In order for the paper bottle to become a serious threat to glass, it will be necessary to improve the present bottle and the machinery used in its manufacture. Storage of pre-fabricated paper bottles is a real problem. Machinery which fabricates the paper bottles requires further refinement.

Glass

The glass industry is now apace with demand. Car load shipments of glass bottles are being made within 30 days. Pool cars are being shipped within 60 days. Pyroglazing is now available on both sides of quart bottles.

Bottle Caps

Most types of caps are being shipped within 30 to 60 days. Capping machines are available in 30 to 120 days according to the type of equipment. Disc cappers are available for immediate shipment. Fully protected lip closure machinery requires from 60 to 120 days.

Milk Cans

The present supply of milk cans is critical. At present they are only being supplied in 30 to 50% of need requirements. The coal strike will further aggravate this condition. This shortage will continue through 1948.

Bottle Crates

Although crates are in plentiful supply at present, a shortage will probably result in June and July due to the coal strike affecting the stock of galvanized sheet steel. The shortage in crates should only be temporary.

Pasteurizers

Pasteurizers and products made from stainless steel are coming through on 60 to 120 days and will probably continue unless the coal strike is of prolonged duration. This should hold true for holding tanks, receiving vats and weigh cans.

Bottle Washers

Soaker bottle washers are now being supplied in 3 to 7 months. The soft coal strike can delay the shipping dates of these items by as much as three months due to the increased steel shortage.

Separators and Clarifiers

Separators and clarifiers are available for shipment in 30 days. The flush season of May and June will shorten the supply but this machinery should be available again on short notice after July.

Homogenizers are now in better supply and can be shipped in 60 days.

In summation, the immediate outlook for dairy equipment is slightly shorter supply with some increased prices.

Editor's Note. Since Mr. Lorrey completed his article the soft coal strike has been settled. Feeling that this event has an important bearing on his subject Mr. Lorrey writes: "Now that the soft coal strike is definitely over there will be a steel shortage in 60 to 90 days. Inventories will be used up and there will be a 60 day period during which steel will be very short, especially cold rolled sheet steel.

"Just as soon as the Marshall Plan breaks exports will be large. France and Belgium have already sent in many inquiries. Exports to South Africa and South America have been on the increase."

SPECIFICATIONS

SIZE: For 1 ton chassis; 84" x 65", 54" high. For 1½ ton chassis; 96" x 65", 54" high.

FRAMING: Framing and sub-framing all-steel, electrically welded.

FLOOR: Driver's compartment; approx. 42" wide, on same level and integral with loading compartment. Has lidded openings for access to battery and master cylinder. Joined with loading compartment by 1" flange.

Loading compartment; safety floor, with steel racks over round wheel housings to hold standard milk cases.

DOORS: Rear: metal piano hinges, standard windows, rubber bumpers, 34" opening.

Side: sliding type—lock open or closed. Large window openings. Mounted on roller bearing hangers. Approx. 28" clear opening.

CORNERS: Rear corners of 4" radius, integral with rear panels and door posts. Front roof corners 6".

RUNNING BOARDS: At bottom of skirt from windshield to rear fenders.

STEP-WELLS: Safety tread approx. 14" deep, integral with runningboards.

FENDERS: Special roll-type, heavy-duty. Replace standard fenders. Standard fender rings.

REAR BUMPER: 3" channel, slide-under type. Extends 6½"; covered with safety plate; fastened with heavy braces direct to chassis frame.

DOME LIGHT: With switch in ceiling behind driver's seat.

ACCESSORIES: Two windshield wipers, rear-view mirror, bookshelf on right side of windshield.

PAINT: One color.

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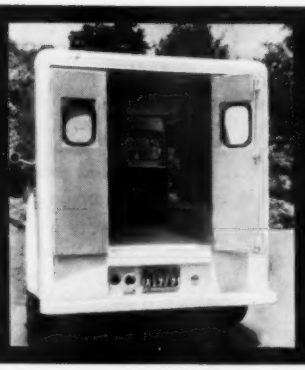

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THE LABOR PICTURE

By **NORMAN MYRICK**

IN CALIFORNIA, Christopher Dairy Farms reports a sparkling forty years of labor relations without a strike. In Hartford the pickets march up and down before Bryant and Chapman-R. G. Miller and Son in one of the bitterest labor conflicts the city has seen. All the varied shadings of labor relations lie between these two extremes and in a sense characterize the state of labor in the dairy industry.

Labor demands and policies have continued to be influenced by price changes and price prospects. It is quite apparent that for the immediate future as prices go up so will go wage demands. What the situation will be if prices go down is problematic. Recent drops in agricultural commodities have touched off a spree of speculation on whether or not the long anticipated leveling off and possible decline in the cost of living has been reached.

That such a point has been reached appears to be a little premature. Although there were declines in some food costs other items of living expense continued their upward trend. This fact, coupled with the general tendency to re-adjust rents upward, offset the food price decline and resulted in practically no net decrease in living costs. Reflecting this relatively unchanged price situation labor unions that had wage negotiations pending in early March continued to press for more money.

One of the outstanding phases of labor activities has been along the lines of union-shop contracts. The National Labor Relations Board reports an unprecedented number of new cases of which more than two thirds were in relation to this type of contract. Of the nearly twelve hundred elections conducted by the board in January almost a thousand were referendums on the union-shop.

Contrasts in Dairy Industry

The labor picture in the dairy industry is a conflicting one. In St. Louis union pressure was responsible for maintenance of Every-Other-Day-Delivery while in other cities the labor economy involved in the system has provoked some controversy. Throughout the industry there is a trend toward the five day week with little or no reduction in pay from the six day week. Operators have worked out a gradual shift, in some cases over a six month period, from the six to five day week.

Employment in butter, ice-cream, and condensed and evaporated milk continued to be high although in each segment of the dairy industry it was down from 1947. Strangest case is butter, which with a falling off in make of nearly forty per cent since 1941, still reports a twenty per cent larger pay roll today than seven years ago.

Wages in these three types of dairy production have increased 108 per cent in butter, 66 per cent in condensed and evaporated, and 71 per cent in ice cream. Although butter wages are the lowest of the three, 99.8 cents an hour as opposed to $1.07 in the other two, they have increased the most

Average wage figures in the fluid milk industry are substantially higher than in the manufactured products section of the dairy business. This is true, however, only if routemen's earnings are figured in. Plant worker's pay does not differ substantially from that reported for workers in butter, ice-cream, and condensed and evaporated. Some labor unions have shown a tendency of late to write in a no soliciting clause into their routemen's contract. This development is spotty, however, and varies in different sections of the country.

Trouble in Hartford

At the present writing the hottest thing on the labor relations griddle in the dairy industry is the strike in Hartford. The strike went into effect on March 2 after negotiations between Local 536 of the International Brotherhood of Teamsters broke down. The issue was a five day week with no reduction in pay.

Union demands were based on similar wage arrangements secured by dairy workers in other Connecticut plants, notably Mitchell Dairies in Bridgeport. Bryant and Chapman offered the Union a five day week with 5½ days pay for the drivers, plant workers to stay on the six day week with 10 cents an hour increase. The Union rejected this offer and a second offer in a smaller vein on the grounds that if the so-called Mitchell plan was acceptable to other Connecticut firms it ought to be acceptable here. Bryant and Chapman said that the Union demand would result in a two cent increase in the retail price of milk and consequently the Company did not feel that it could meet the new wage scale.

At this point the going began to get rough. The Union took a strike vote and the company notified the Union that it intended to continue to operate its business. In preparation for the eventuality of the strike the Company brought in workers from other National Dairy Corporation plants. The Company maintains that employees were notified of the firm's intention to replace strikers with new people on a permanent basis. The Union maintains that they were not.

"Observers" Ride Trucks

On March 1 "observers" rode with the regular drivers on the milk trucks of two companies. The regular drivers demurred about going out but the Local's business agent said to go ahead pending strike authorization from the International's headquarters. March 2 was the crucial day fraught with misunderstanding. Company officials learned late on March 1 that there would be no strike if the observers did not go out on the trucks. Notification was given to all observers to stay "out of sight" by the Company. Union leaders say that they received no word of this action and supposed that the "observers" had not been called off. Accordingly the strike took place.

Determined to operate the business as they had said they would, the company advertised for man to replace those on strike. Three days after the Company had advertised for new help the Union offered to call off the strike and resume negotiations if the Company would take back the regular men. The Company maintained that they had hired the replacements in good faith and could not honorably turn them out. They did offer to take back some of the men and subsequently went up as high as 75 per cent of the original force. The Union rejected this offer and the strike has continued its unfortunate

(Please Turn to Page 67)

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THEY'VE GOT TO HAVE GRAIN

Professor L. C. Cunningham
Cornell University

L. C. CUNNINGHAM

Recognizing that no symposium on milk would be complete without a discussion of grain the Editors of the "Review" called upon Dr. L. C. Cunningham for help. The result is this fine article "They've Got to Have Grain" which, based on the most recent statistical information, presents the feed situation as of now.

•

FEED GRAIN reserves in the United States this spring are low. This is in sharp contrast to the situation in any of the past 10 years. The 2.4 billion bushel corn crop of 1947 marked the first major break in bumper feed crop production in several years. How rapidly has the adjustment to smaller feed supplies been made this season? And what has been the impact of this reduced feed supply on the different kinds of livestock, particularly dairy?

Feed Grain Stocks

The total stocks of feed grains—corn, oats, and barley—on farms in the United States, April 1 this year were 30 per cent smaller than last year, according to reports of the United States Department of Agriculture. Farm stocks of corn, backbone of the livestock feed industry, were the lowest since 1937. Wheat stocks were much larger than the relatively small stocks on farms a year ago (table 1).

From the reports of quarterly grain stocks and of monthly production of mill feeds we can judge roughly the timing of the necessary reduction in feeding operations that has occurred so far this year.

The total supply of concentrates available for livestock feed at beginning of the current feed year (October 1) were estimated to have been about 12 per cent smaller than the amount actually fed during the preceding year. The supplies of grains for feed, assuming 250 million bushels of wheat for livestock feed, were 14 per cent smaller because of the reduced corn crop. However, the supplies of high protein feeds, including the oilmeals, gluten, distillers' and brewers' dried grains, and the like, were only 1 per cent smaller.

First Quarter Reduction Greatest

The domestic disappearance of grains for feed and other uses was reduced about 8 per cent in the October-December quarter, 1947, as compared with the corresponding quarter a year earlier.

In the January-March quarter of 1948, the reduction in the domestic disappearance of these grains was about 13 per cent.

The use of high-protein feeds was higher than a year ago by 9 per cent in the October-December quarter and by 2 per cent in the January-March quarter.

	—Per cent change from a year ago—	
	October-December	January-March
Grains	—8	—13
High proteins	+9	+ 2
Total	—6	—12

The total disappearance of these two groups of feeds was only 6 per cent smaller in the first quarter (October-December) of the feed year than in the corresponding period a year earlier. But the reduction was 12 per cent during the next quarter.

That is, in the face of active consumer demands, livestock producers have been rather slow to reduce meat, milk and egg production and thus to bring feed demands into line with the smaller 1947 corn crop. Persistently high feed prices have, however, set into motion the forces of change. If the forced reduction currently taking place is now to be accompanied by favorable feed crop prospects for 1948, (as was indicated in mid-April), continuation of high feed prices much longer is not to be expected.

Beef Cattle Feeding Reduced

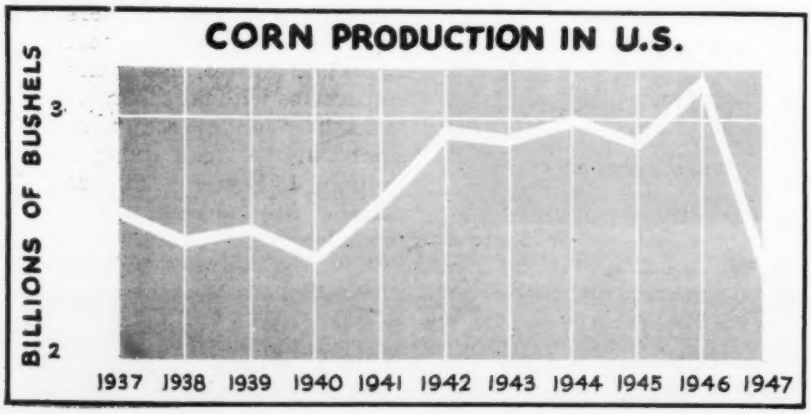
How have these necessary cuts in feeding operations affected the different classes of livestock? Here is how the picture looked in mid-April.

Total milk production has been running 5 to 6 per cent smaller than a year ago. Milk cow numbers are down about 4 per cent and young stock down about 2 per cent.

Egg production has been 1 to 5 per cent smaller than a year ago. The number of layers is only 2 per cent smaller, but the number of young chickens on farms is down 24 per cent from a year ago. Total poultry feed consumption in March was probably off about 10 per cent.

The marketings of last fall's pig crop are as large or larger than last year. Average slaughter weights up until April at least had not been reduced. Numbers of breeding stock were, however, about 10 per cent smaller than a year earlier.

Beef cattle feeding has been reduced about 25 per cent.



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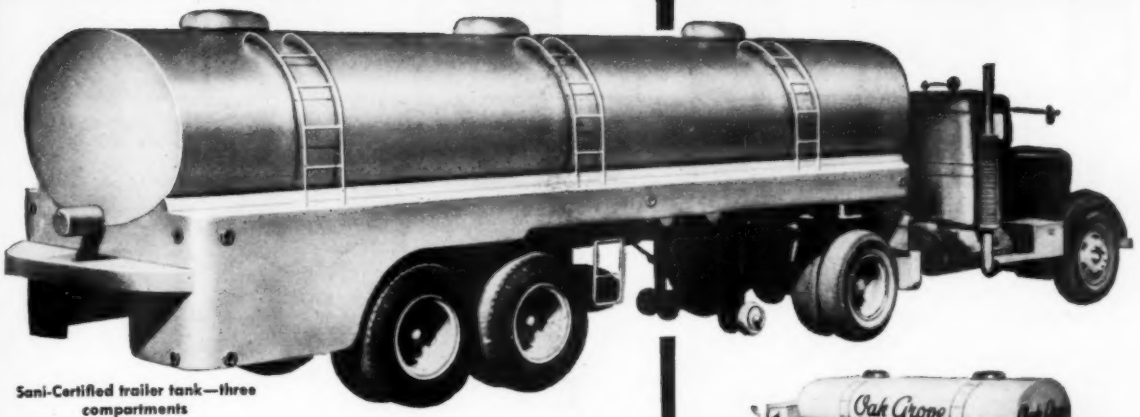

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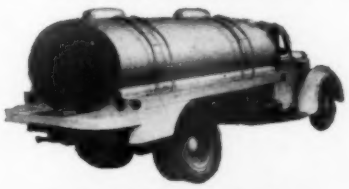
Trailer tank—one compartment

Truck tank—one compartment

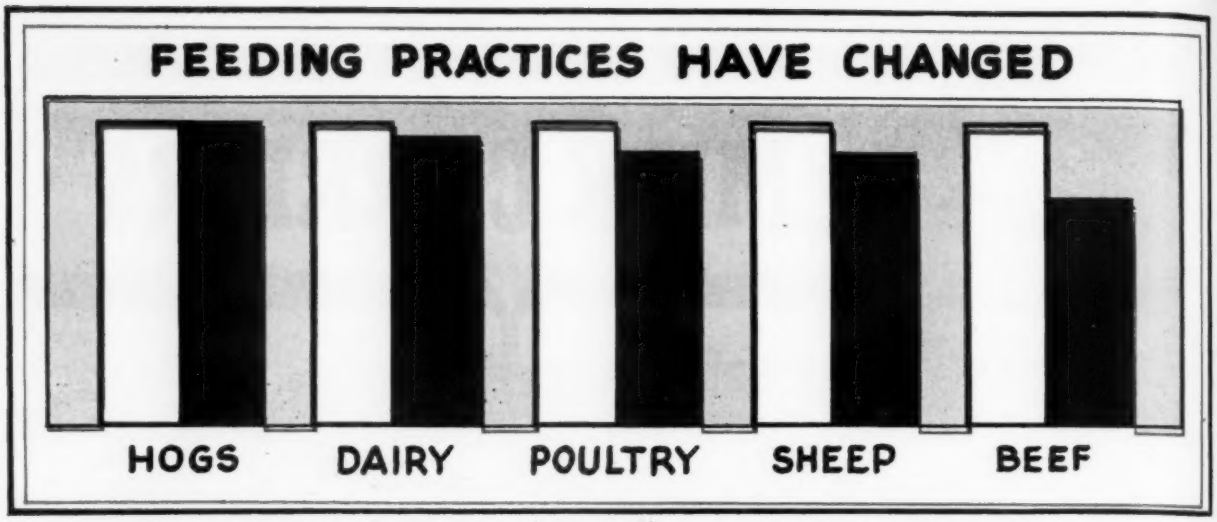


Truck tank—two compartments

STAINLESS & STEEL PRODUCTS COMPANY

1000 BERRY AVENUE ST. PAUL 4, MINN.

EASTERN SALES OFFICE: 724 FIFTH AVENUE, NEW YORK 19, NEW YORK



WHITE BARS REPRESENT GRAIN FED LAST YEAR BLACK BARS REPRESENT PRACTICE THIS YEAR.

Feed requirements for sheep and lambs are smaller by about 10 per cent.

During the second quarter of this feed year, total meat production was apparently about 10 per cent lower than a year ago. The reduction has been greatest in beef and least in hogs.

	Per cent change from a year ago
Hogs	0
Dairy	— 5
Poultry	—10
Sheep and lambs	—10
Beef cattle	—25

Future Prospects

What are the prospects for summer and fall? Farmers' reported intentions to plant feed crops this spring are encouraging to the livestock industry, but weather in its effect on yields is still the big factor. Present indications are that hogs and poultry will be cut something like 10 per cent and 20 per cent respectively this fall. These reductions are already pretty well determinted by the spring farrowings and hatchery operations. Given a reasonably favorable season of feed crop production this year, it may be that milk production next fall will not be reduced seasonally any more than the 5 or 6 per cent reduction experienced so far this spring. The number of young stock on hand is sufficient to maintain dairy cow numbers at or near the present reduced level.

In summary, grain stocks are low and commercial by-product feeds have apparently been fed more liberally during the first half of the feed year than the year's supply can stand. Feeding rates and livestock numbers are being reduced from their high levels of recent years. The levels to which it will be necessary to reduce now depend largely on weather conditions during the current crop season.

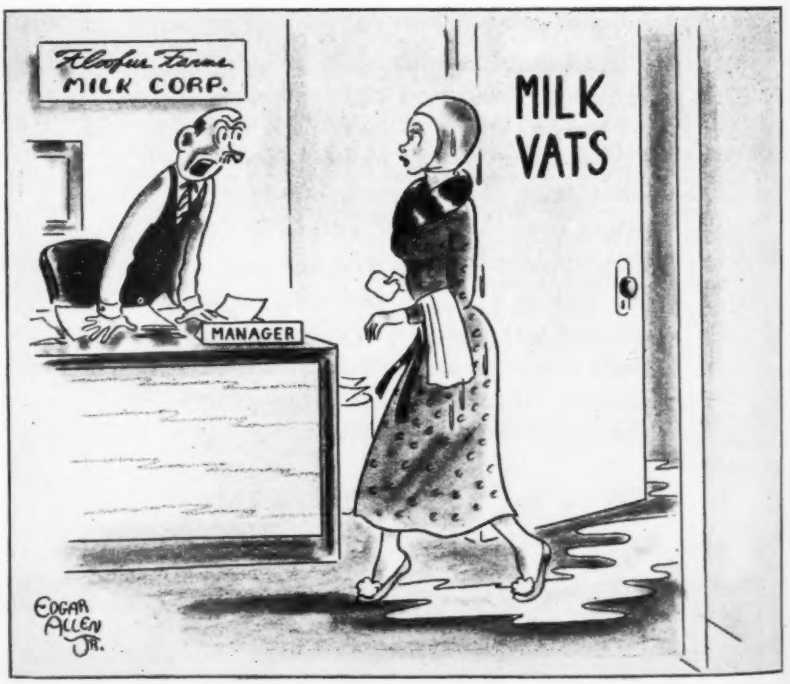
Table 1
FARM STOCKS OF GRAINS
April 1, 1948, United States

Grains	1947 mil. bu.	1948 mil bu.	Change per cent
Corn	1,276	849	—33
Oats	533	411	—23
Barley	67	69	+ 3
Wheat	140	257	+84

Source: USDA crop Production, April 1, 1948.

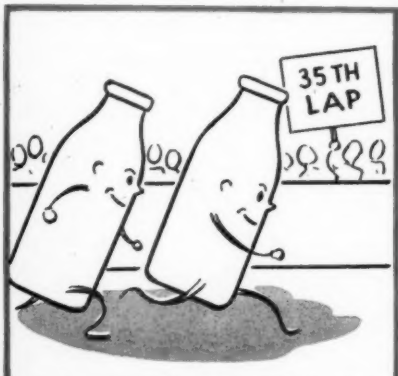
Dairy Daze

By Edgar Allen, Jr.

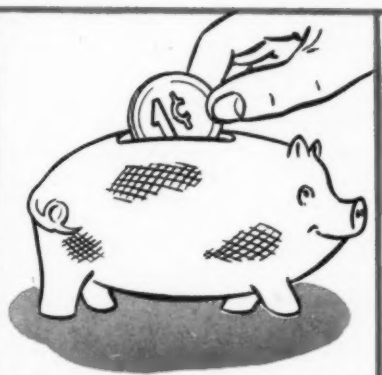


"MISS O'ROURKE, THIS IS THE LAST TIME I'M GOING TO SPEAK TO YOU ABOUT TAKING MILK BATHS!"

You can't beat RETURNABLE GLASS BOTTLES for reducing costs!



Only returnable glass milk bottles make 35 round trips or more each — result: lowest cost container for milk.



Costs approximately 1¢ a quart less to package and deliver milk in glass bottles. — Don't throw your profit away on other type containers.

Thatcher T-Squares increase cold room storage by 50% and truck capacities up to 63% — two of the best ways to reduce costs for more profit.

Now's the time for dairies to watch costs. A recent study shows profits per $1 of sales is only 1¢ — a slim margin that must be held and increased.

Thatcher offers you a "double-barreled" helper that can't be beat for reducing costs . . . which is the best way to increase profits. It's the *returnable, glass,* T-Square milk bottle.

Returnable glass milk bottles bring the customer back into the store for repeat sales — and 65% of housewives prefer store-purchased milk in glass bottles.

THATCHER GLASS

MANUFACTURING COMPANY, INC.
ELMIRA, NEW YORK

REPORT FROM TH

HERBERT L. BUTTRICK

FRANCIS H. KULLMAN

DAVID H. BUTTRICK

President, David Buttrick Company
Arlington, Massachusetts

According to the Federal Reserve Bank of Boston, the population in New England has increased in recent years more than in any region in the nation except the Pacific Coast.

New England fluid milk production is inadequate to the year-round demand of its markets. It has been a deficit area for four of the latest five years, requiring importation of from fifteen to twenty million pounds of milk during months from October to March for the Boston market and probably almost as much for the secondary markets of the six states.

Demand for the first quarter of 1948 has been running a little over one per cent below similar period of last year, while production has decreased to as much as fifteen per cent below last year. Culling of herds more deeply than usual due to high feed costs, coupled with tempting prices for beef offered by local slaughterers, is reducing current production below normal and probably will seriously accentuate the fall short supply.

A new formula for pricing of Class I milk under the Greater Boston Federal Milk Marketing Order became effective April 1st. This formula has the widest support of any proposed in fifteen years. It is believed that this method of pricing offers the most realistic approach devised since "planned economy" began its soothing "all things to all men" treatment and it is hoped that it may influence seasonality of production to the realization of a more nearly adequate year-round supply. If this hope is not realized, New England producers will lose much of their fine market.

The immediate outlook simply presents another challenge to Yankee ingenuity. Yankee spirit will prove equal to the "chores" involved.

●

ROBERT M. WELLWOOD

Executive Vice-President, Sheffield Farms Company, Inc.
New York, New York

On the whole, I would say that the outlook for the fluid milk business in the New York metropolitan area is fairly bright.

Between 1940 and 1946, along with certain corollary factors such as wartime scarcity of other foods and the relative abundance and availability of milk, shifts in population were responsible for the sudden upward surge of fluid milk sales all over the country.

In those seven years fluid milk sales in the New York market rose 27%. This was the smallest increase of 14 Northeastern cities, some of which showed a rise of of 30%, 50%, 60%, and even 88% (Washington) in the same period.

In 1947 1.3% less milk was sold in the New York market than in 1946. This was one of the smallest sales declines among the 14 Northeastern cities, all but three of which showed diminishing sales in 1947 in comparison with 1946.

These figures (from the Milk Dealers Association of Metropolitan New York)—comparatively gradual sales increase between 1940 and 1946 and comparatively gradual sales decrease in 1947—indicate that the New York market is stable and I feel it will remain that way.

Despite diminishing sales in 1947, some salient factors point to the continuing high demand for milk in the immediate future:

1. The favorable price of milk compared to other foods.

2. Average factory earnings in New York City can purchase at least 10% more milk today than before the war.

3. Consumer incomes are at high levels.

4. The government estimates that per capita milk consumption will remain at about 17% more than the pre-war level.

5. The milk supply for the New York metropolitan area conforms to very high quality standards and the public is being educated more than ever before as to the nutritional benefits of milk.

6. The 1947 New York birth rate was 67% higher than in 1939. This affords ample scope for the sale of quality milk since the new mother is usually quite quality conscious about the baby's milk.

At the present time there is some uncertainty as to the amount of milk that will be produced in the New York milk shed in 1948. We do know that the cow population of the United States has decreased 3.6% since last year and current production figures run 6% below 1947. Our milk production will be affected by a number of factors: (1) Farmers' price. This will have a bearing on whether the farmers will ease up on the sharp culling of stock from their herds; and (2) Weather conditions during the spring and summer which will determine the amount of pasture available and the amount of crop production of corn and feed grains.

Greater herd production through improved farm practices should be promoted. 4-H Clubs, Future Farmers of America and other such groups with vital, constructive programs should be supported by our industry. My own Company, Sheffield Farms, has pursued such a policy for some years now and will continue to do so.

●

GEORGE CHRISTOPHER

President, Christopher Dairy Farms
San Francisco, California

The volume here has dropped off considerably since the termination of the war, especially in view of the fact that San Francisco was a war center and took care of many enlisted men who passed through here. We do not seem to be having too much difficulty in receiving new equipment, and our firm at the present time is in the process of completely reinstalling our processing equipment, although there is necessarily a wait, oftentimes of two to six months, for such equipment.

I believe that the most imperative need at the moment for the average small dairy is a supply of paper cartons. I cannot over-stress this point. One

concern has a monopoly on the supply of paper cartons and most firms are not able to secure supplies from them. Some types of packaging machines are not acceptable in California except in places where there is no competition. In San Francisco, particularly, these machines have been found to be wholly unacceptable. Perhaps the reason is in the nature of the package. The trade here prefers a flat carton.

I believe that any firm that could go into the manufacture of paper cartons with a flat top would meet with instant acceptance. In fact, should you be able to enlighten us in this matter I know that there are many Dairy Companies who would hasten to install such equipment.

Insofar as prices are concerned, we are regulated by the State Department of Agriculture and have managed to proceed on the basis of a fair return on the investment. Labor difficulties are not too serious in San Francisco, for we are blessed with an enlightened union leadership which has been cognizant of the dairy industry requirements, and as a result for more than forty years no strike has ever ensued in our industry. The employers, on the other hand, try to meet conditions by compensating the employees on a basis which is mutually termed fair.

I would say at this moment, therefore, that the most pressing problem insofar as the small dairyman is concerned is the need of an adequate carton filling machine with a flat top carton that can be stored handily in refrigerators.

●

LINDSLEY WATERS, JR.

Vice-President, Tennessee Dairies
Dallas, Texas

We feel that despite increasing inflation, threat of war, foreign aid and even the Federal milk marketing regulations that dairy farmers and fluid milk distributors have a good future.

We believe there is a need for a more effective method of selling the necessity for efficiency and quality to the dairy farmer. The gospel is way behind the need at this point.

We believe we have need for better education of the general public on the subject of dairy products. Many persons still don't understand the real value of dairy products and their relative low price.

We see a real need, too, for greater uniformity of Health Department regulations over the entire country. Occasionally there are violent disagreements between departments having jurisdiction in adjoining areas.

We see a marked trend in our area toward increased percentage of sales of homogenized milk, milk in half gallon containers, and milk in disposable paper containers.

●

FRANCIS H. KULLMAN, JR.

Vice-President, Bowman Dairy Co.,
Chicago, Illinois

Spiraling prices and inflationary conditions are producing major economic problems for the industry that must be met. "One of the outstanding matters at hand is to keep consumers, dairy farmers and employees more fully and currently informed on the rapid economic changes taking place in the fluid milk business. We cannot expect people who are busy keeping their own economic affairs in tune with times to stop and figure out what we are up against in our fight to keep prices down in this upset period."

The distributor's job is a difficult one. He is paying record-high prices to the farmer for his milk and to labor its highest wage in industry history. These two factors alone, which use up more than 80 cents of every dollar the distributor receives, are generally set by Government orders and union contracts. With less than 20 cents remaining out of the sales dollar, the distributor must pay for delivery and plant equipment, fuel, bottles, cans, cases, caps and for depreciation, insurance, taxes and a host of other items. Any net profit also must come out of this portion of the dollar. Profits have shown no increase, but remain about two to three cents on the sales dollar. Of course, this means only a small fraction of a cent profit per quart.

Only by the careful watching of the smallest expenditures and by introducing every conceivable measure of economy have milk price increases been retarded—kept from climbing at the rate set by "all foods". These are facts which must be reiterated if we want people to remember them.

If the fluid milk industry wants to keep ahead, it will require hard work to build up more aggressive efforts to retain the industry's position in food consumption.

R. M. WELLWOOD

J. A. WEBB

DR. J. A. WEBB, V.M.D.

Vice-President, Abbotts Dairies, Inc.,
Philadelphia, Pennsylvania

Many sections of Pennsylvania are very favorable for the growing of farm crops that are suitable for feeding the dairy herds of the State. The availability of these home grown feeds has a very marked effect on the production of milk, and under favorable conditions this year milk production should be comparable with 1947. I make this prediction even though the average daily production for February was about 2% under that of last year.

The prospects, at this time, for a good hay crop are good. Labor and other costs continue high, but the present level of prices for milk are favorable to a continuation of the production of milk.

We have heard many disturbing reports as to the number of heifers that have been slaughtered because of the high return for beef. Current figures are not available as to what extent this factor may influence our Pennsylvania production this year.

With normal weather conditions for the third quarter of the year, we should have our usually good crop of Pennsylvania corn, and our hay and small grain crops will have been grown and harvested ready for fall and winter use.

INVESTIGATION IN CHICAGO

By **JOHN T. SEMBOWER**

VIRTUALLY EVERY major milk company in Chicago feels very much on the spot as the Department of Justice's grand jury investigation bears down on milk handlers in the area.

The outlook of the investigation is about as obscure at this stage as would be an attempt to look through the good rich cream distributed by any of the prospective defendants. Dealers are pessimistic, however, and there is considerable suspense over what will happen after grand jury hearings are resumed on May 14.

The origin of the grand jury investigation is shrouded in secrecy. No one but the Anti-Trust Division knows who instigated it, and the Division is not telling. This is common in grand jury investigations. The belief here is that it stemmed from national policy in the Department of Justice rather than purely local considerations. The fact that similar investigations have been and are being conducted elsewhere tends to support this conjecture.

The current respite in the proceedings was won by the Borden Company, which tried unsuccessfully to resist a subpoena duces tecum (a demand for records) but did manage to convince Federal Judge Barnes that it should have additional time in which to supply elaborate data required of it.

Borden contended that it was being unreasonably harrassed by the District Attorney, and put to great expense defending itself against a "fishing expedition." The hearing on its motion is the only matter of public record so far in the entire proceeding which started last September.

Naturally there is no way of telling at this stage whether the jury will return an indictment as did similar juries recently in St. Louis, Chattanooga, Washington, D. C., and Boston.

Companies in the Dark

But the milk groups are comparing notes as the proceedings progress, and the best guess seems to be that the grand jury is mainly probing into alleged violations of the Robinson-Patman Act, for most of the witnesses have been persons who might be expected to testify concerning discounts extended either to chain stores or independents.

The data Borden has to produce, however, concerns its purchases of other milk companies in the area, and falls more into the category of Sherman or Clayton Act issues.

The Sherman Act declares it to be unlawful for any contract, combination in the form of a trust or otherwise, or conspiracy in restraint of trade or commerce to be formed, and also aims at "monopolization, attempt to monopolize, or combination or conspiracy to monopolize any part of trade or commerce."

The Clayton Act supplements the Sherman Act. Its Section 2 prohibits discrimination in prices between different purchasers of commodities of like grade and quality in interstate commerce, where the effect of such discrimination may be to substantially lessen competition or tend to create a monopoly.

Under the Clayton Act, discrimination in price, however, is permitted when it is based on difference in grade, quality, or quantity of the commodity sold, or on differences in the cost of selling or transportation, or where made in good faith to meet competition. It also permits sellers to select their own customers in bona fide transactions and not in restraint of trade.

The Clayton Act's Section 7 prohibits any corporation engaged in interstate commerce from acquiring stock of a competing corporation, also engaged in interstate commerce, where the effect of such is to substantially lessen competition

or tend to create a monopoly. The Section, however, does not prohibit bona fide mergers or consolidations.

The Robinson-Patman Price Discrimination Act., like Section 2 of the Clayton Act which it amended, prohibits price discrimination in interstate commerce where such discrimination may substantially lessen competition or tend to create a monoply.

The same provision in the Clayton Act was construed by the Courts to apply only to price discrimination which substantially lessens competition generally. The Robinson-Patman Act, however, prohibits not only price discrimination which substantially lessens competition or tends to create a monoply, but also price discrimination where the effect is "to injure, destroy, or prevent competition with any person who either grants or knowingly receives the benefit of such discrimination, or with the customers of either of them."

In other words, the act also prohibits price discrimination which may injuriously affect any competitors in the same business, no matter how few, even though it does not injure competition in the market generally.

The milk company phalanx has been broken somewhat by the feeling on the part of several of the companies being investigated that certain handlers have "cooperated overly enthusiastically" with the Department of Justice.

A spokesman for other companies said bluntly: "They are making a big mistake, for it is well-known that the District Attorney often turns around and prosecutes a 'cooperator' just as vigorously as anyone else."

Other milk spokesmen contend that it is "an election year maneuver." They point out that the investigation was launched close on the heels of Attorney General Tom Clark's blast last fall against "monopolies in food, housing and clothing."

"The cost of consumer goods is a big political issue this year," said this milk representative. "It is only to be expected that we would get a going over."

Believe Price is Fair

However, the Chicago milk men believe that their price of 22 cents a quart for home delivery compares favorably with other localities. The prevailing prices for milk to stores is two quarts for 39 cents or one-half gallon for 47 cents, and the milk spokesmen stoutly maintain that this differential is fully justified by the added labor cost in house-to-house deliveries. It amounts to an average 2 per cent differential in favor of stores.

Melville C. Williams of the Anti-Trust Division is in charge of the investigation. He states that at this time he can make no comments and grand jury procedure supports this reticence.

Attorney Edward L. Hart is counsel for a number of the milk companies, and he is helping them all he can but is handicapped by the "star chamber" nature of grand jury investigations. If an attorney gets before the jury in any way, the proceeding is spoiled and the jury has to be discharged.

The concensus among the close observers on the milk side of the controversy is none too optimistic concerning the outcome of the grand jury phase. They point out that grand jury rules forbid prosecution of anyone who appears before the jury in person.

This has resulted in no officials of the milk companies being called. "Only disgruntled individuals who have a beef to make are called before the jury, and it is certain to get a biased view as a result. We would not be at all surprised at an indictment being returned under the circumstances, but do not fear the resultant session in court," the milk spokesman added.

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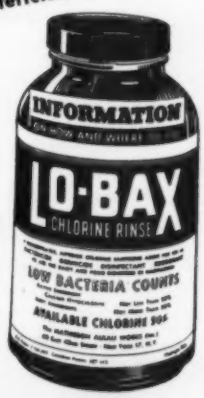

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PMQ
PROTECT MILK QUALITY

XUM

THE CORRESPONDENTS REPORT

CALIFORNIA

By JOHN BREVIT

EFFECTIVE FROM MARCH 1st, California's milk producers received their long-awaited increase in the cost of milk to distributors. The prices, formed on a regional basis, are as follows:

	Per cwt. for 3.8 milk
San Francisco	$5.3
San Mateo	5.24
San Jose	5.16
Oakland	5.32
Fresno	5.05
Los Angeles	5.46

The Correspondents Report along with North of Forty-nine, Report From the Industry, and Report From the Big Four are new and exclusive features in the American Milk Review. This first report by Jim Taggert, Robert Kanode, John Brevit, and Jeff Sterns is the first of what we hope will be an important and exciting feature of subsequent Reviews.

The Bureau of Milk Control of the State Department of Agriculture has further provided that, at the present price of skim-milk, the above prices per cwt. shall vary according to butterfat content at the rate of $.0005 per each 1/100 of 1% of butterfat. However, this applies only up to and including 4.5% fat content. Above 4.5 there shall be no further variation. The prices above, again, are for the month of March, 1948 only. There shall be a monthly variation of price based on three factors:

(1) The price of skim-milk powder
(2) Basic feed ration
(3) Price of manufacturing milk.

Milk producers of the state considered increases mandatory due to higher costs of labor, material and supplies necessary for the conduct of their business. Their pleas resulted in the passing of Resolution 74 by the 1947 state legislature for the purpose of finding the most equitable basis for payment of milk from producers. A study was made by David A. Clarke, Jr. and J. M. Tinley, associates of the Gianinni Foundation of Berkeley, Calif., who together authored the booklet, "Bases For Payment of Milk." Clarke's proposals were taken to the milk producers in 26 milk hearings, throughout the state, arranged by Ted Farrell of the Bureau of Milk Control.

Clarke's proposals, in essence, were thus: all milk will be priced on a hundredweight method rather than on a direct fat ratio as in the past. For instance, a can containing 86 lbs. of whole milk will bring 35c more than under the old system if it tests 3.8%; 27c more if it tests 4%; 27c again for 4.5%; 30% for 5% and 33c for 5.5%. The past producers price was $1.34 for a 3.8% test according to a direct fat ratio which comes out $5.05 cwt. If the new formula were to be adopted, then a 3.8% test will bring $5.40, or a 35c more than in the past. Milk testing over 3.8 will be paid for at a slightly decreasing scale for fat to compensate distributors for the cost of standardizing down to 3.52%, the average test of milk sold in Los Angeles.

Fat Payments Questioned

During the regional meetings, reactions by the industry to the new proposals were mixed. Lawrence H. McDaniel, secretary of the California Holstein-Friesian Assn., in endorsing the new proposal pointed out that California was years behind the times in permitting the antiquated system of payment to producers by direct fat ratio to continue and that the new system did not penalize but actually paid for all the milk. Frank Loughary, secretary-manager of the California Guernsey Club, in another meeting, saw the cwt. plan as discriminatory toward producers of milk over the 3.8% base in that they would be forced to accept less for a superiod product and that the system would gradually lead producers and public to a low-fat content milk and hence cause a decline in the importance of milk in the human diet.

Contributing also to the concern of dairymen is California's near-drought condition resulting in a loss of pastures and causing either a cutting or a moving of stock. North of the San Francisco-Sacramento line, according to the State Department of Agriculture, early spring rainfall has been sufficient to guarantee fair pasture conditions for the year to come. South of the San Francisco-Sacramento line, however, rainfall has been definitely insufficient. The drought-like condition is prevalent right down to the Mexican border. The other western states are in a comparitively good pasture condition and are without cause for concern.

Of interest to the Northern California milk consumer is the rise in prices effective from March 1st. A rise of from 1½c to 2½c a quart, according to locality, has been established as a result of increases in the cost of alfalfa hay and other supplies and increased wages among milk producers and distributors.

•

TEXAS

By JIM TAGGART

DALLAS, TEXAS—AN ARGUMENT between State Health Officer George W. Cox and City Health Director J. W. Bass over whether or not Dallas has a large enough supply of grade A Milk to prohibit sales of ungraded milk got a front page spread in the Dallas News, March 18.

In Austin Dr. Cox said Dallas has enough grade A milk to make sale of ungraded milk unnecessary. But Dr. Bass countered that it does not.

Both cited figures to prove their contentions. Dr. Cox quoted statistics for January; Dr. Bass cited figures for the

six days from March 6 to 11. Dr. Cox started the argument when he told the Austin Bureau of the Dallas News that Dallas was not keeping an agreement among the five larger cities of Texas and the State Health Department to prohibit sales of ungraded milk after March 1.

The State Health Officer cited a statement by Dr. Bass March 5 that because of a shortage of grade A milk that "we have decided to forget it (the agreement) until the supply improves."

Dr. Bass said at the time that all fluid milk sold in Dallas was grade A and that ungraded milk (condensed milk) was used only in some of the buttermilk and milk products sold here.

Dr. Cox said that the State Health Department had made a survey of the Dallas milk supply in January. Dallas distributors then were receiving 43,374 gallons of grade A milk daily while consumption was 35,076 gallons.

"Simple subtraction shows a surplus of 7,298 gallons of grade A milk a day," he said. "The survey also showed that 6,455 gallons of ungraded milk, buttermilk and skim milk chocolate are being sold in Dallas daily.

"Here again simple subtraction shows that these products could be made from the 7,298 gallons of grade A surplus and still have a surplus of 843 gallons."

He said that there was no excuse for the Dallas City Health Officer permitting the sale of ungraded milk and milk products to Dallas residents "who look to him for protection." Dr. Cox said that 6,285 gallons of grade A milk is being shipped daily from Dallas, some as far as 300 miles distant.

"I believe the citizens of Dallas are entitled to grade A milk and milk products," he said.

"I do not know how Dr. Cox knows how much milk is sold outside of Dallas. I do not know, and it is none of my business to tell the distributors where they sell their milk," Dr. Bass replied. "But I do know how much milk is received here and how much is sold.

"From March 6 through March 11 sales of fluid grade A milk averaged 41,447 gallons and sales of buttermilk and milk products 8,001 gallons. That is a total of 49,448 gallons a day. For the same period receipts of grade A milk by the 12 Dallas distributors averaged only 44,089 gallons—a shortage of 5,359 gallons a day.

"The figures speak for themselves."

Dr. Bass said no other city in Texas is selling only grade A milk and milk products. "Ungraded buttermilk is being sold in Austin and Dr. Cox knows it," Dr. Bass said. "It also is being sold in Ft. Worth and San Antonio.

"We had heavy freezes in January and February and again March 13. We also have lost about 50 dairy herds from the Dallas milk shed, largely because of high prices being paid for cattle for meat. Under the circumstances I wonder how in the world Dr. Cox expects that milk production would hold up to expectations."

Form Breeding Association

Wichita Falls, Texas—Approximately 40 area dairymen met the week of March 21 in the Wichita County community of Iowa Park to plan the organization of a Wichita County artificial breeding association, L. J. Iwig, veteran agriculture instructor reported.

Locke Lawrence, of Iowa Park, was elected chairman of the board of directors for the new association. Others named

(Please Turn to Page 72)

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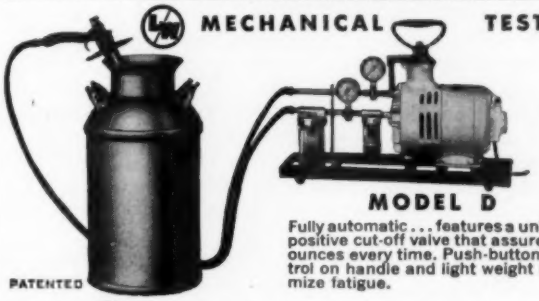
L/W MECHANICAL TESTER



MODEL D

Fully automatic . . . features a unique, positive cut-off valve that assures 16 ounces every time. Push-button control on handle and light weight minimize fatigue.

PATENTED

L/W AIR-VAC
MILK SEDIMENT TESTER
MODEL E

Operates from your own compressor (capacity 30 pounds minimum). Regulator maintains constant pressure for uniform sediment test. Air filter prevents any condensation, rust or foreign matter from contaminating milk or restricting normal, easy operation. 20 feet of dairy hose included.

STAINLESS TUBE AND HEAD

L/W DISCS

Strong, durable, correct 1¼" size, made of best material. Come in handy box of 100 discs.

L/W "OFF-THE-BOTTOM" CREAM SEDIMENT TESTER
MODEL F

Efficient design provides fool-proof regulation to assure the sampling of the standard 16 ounces of cream and 16 ounces of water. Eliminates any waste or contamination of cream . . . permits tests in the receiving room . . . speeds up testing many times.

PATENTED AND PATENT APPLIED FOR.

PATENTED AND PATENT APPLIED FOR

L/W CARDS
No. 5, front and back shown, ¼ actual size.

L/W DAIRY SUPPLY DIVISION
THE LANGSENKAMP-WHEELER BRASS WORKS, INC.
1151 WEST 79th STREET · CHICAGO 20, ILLINOIS

NEW JERSEY DRIVER HONORED

Supplee-Wills-Jones Routeman Receives Award for Saving Life of Child — Sixth to Be Recognized by Company During Past Five Years

AN OAKLYN, N. J., MILKMAN who saved the life of a three-month-old baby in Collingswood, was honored Thursday, April 1, at a luncheon held in Camden, N. J. at the Walt Whitman Hotel.

He is Angelo Di Dio, a driver-salesman for the Supplee-Wills-Jones Milk Co. He received awards from both the milk company for which he works and the Camden County Chapter of the American Red Cross.

Mr. Di Dio saved the life of the three-month-old son of Mr. and Mrs. Cyril Stead, of 139 Fern Ave., Collingswood, on December 9 when the child had become smothered under several blankets in his crib.

According to Collingswood Chief of Police William H. Beck, who reported the incident to the Supplee company, prompt action by Mr. Di Dio in applying artificial respiration to the unconscious child saved the baby's life.

"On December 9," said Chief Beck, "Mrs. Stead was upstairs preparing a bath for her four-year-old daughter. While doing this she heard the muffled cries of her three-month-old son. Somehow the blankets in the crib had worked over the baby's head, smothering him. Mrs. Stead hurriedly raised the window and seeing your salesman, Mr. Angelo Di Dio, frantically called to him.

"Mr. Di Dio ran into the house, quickly appraised the situation and coolly set about to right it. He picked the baby up and immediately administered artificial respiration, gave directions to call a physician and then police. When the police arrived with Dr. Albeck, the baby was recovering rapidly. In Mrs. Stead's own words, 'Had another two minutes elapsed, I feel that my baby would have died and only the quick action of Mr. Di Dio saved him. I am ever grateful.'"

The Chief added that "we of the police department are also grateful" and "I feel credit should be given him and he should be publicly commended."

At the luncheon in his honor today, Mr. Di Dio received the Supplee Hero Award, established in 1943 for presentation to employees for acts of bravery and valor performed outside their line of duty. Six other men, three of them from New Jersey, have received the award in the past five years. Mr. Di Dio was presented with a United States Savings Bond, a silver lapel button and a leather-bound certificate bearing a citation.

The Supplee driver also received a citation from the American Red Cross for his expert application of the first aid knowledge he received during training by that organization.

The Supplee award was made by Captain John F. O'Neill, of the Philadelphia police, who is a member of the Supplee Hero Award Committee. Besides Chief Beck and Captain O'Neill, about 40 representatives, of the company, the milk drivers' union and the Red Cross attended the luncheon.

CERTIFIED

NEW—FROM THE LEADER!

PAPER CONTAINER CASES

No longer need you struggle with makeshift cases for your paper containers.

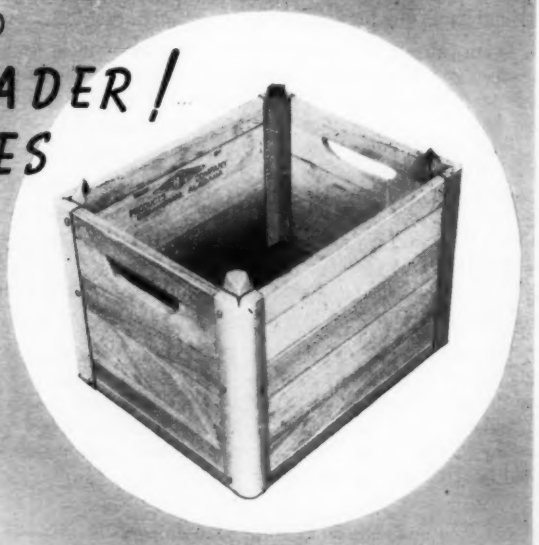
CERTIFIED now offers the same exclusive features found in CERTIFIED CASES for glass containers.

1. Full length stacking irons and inside corners.
2. Formed-over outside corners for perfect stacking.
3. Famous "Inverted Q" bottom runners for longer life and smoother conveying.
4. Full thickness handles for "hook-type" case truck handling.
5. All Southern Hardwood construction—no nails or screws to cause "leakers".

Smooth inside construction, snug bottle fit without binding combine to protect the wax coating so that your container is transported and delivered in perfect condition.

Replace your nailed, light-weight boxes by joining the switch to CERTIFIED PAPER CONTAINER CASES.

Ask your favorite jobber to show a sample of this case or write direct.



Illustrated above is the PPQ30. 30 bottle capacity for Pure-Pak Quart Paper Containers. By "double decking" may be used also for pints and/or half-pints. Also made in 16-bottle and 24-bottle capacity.

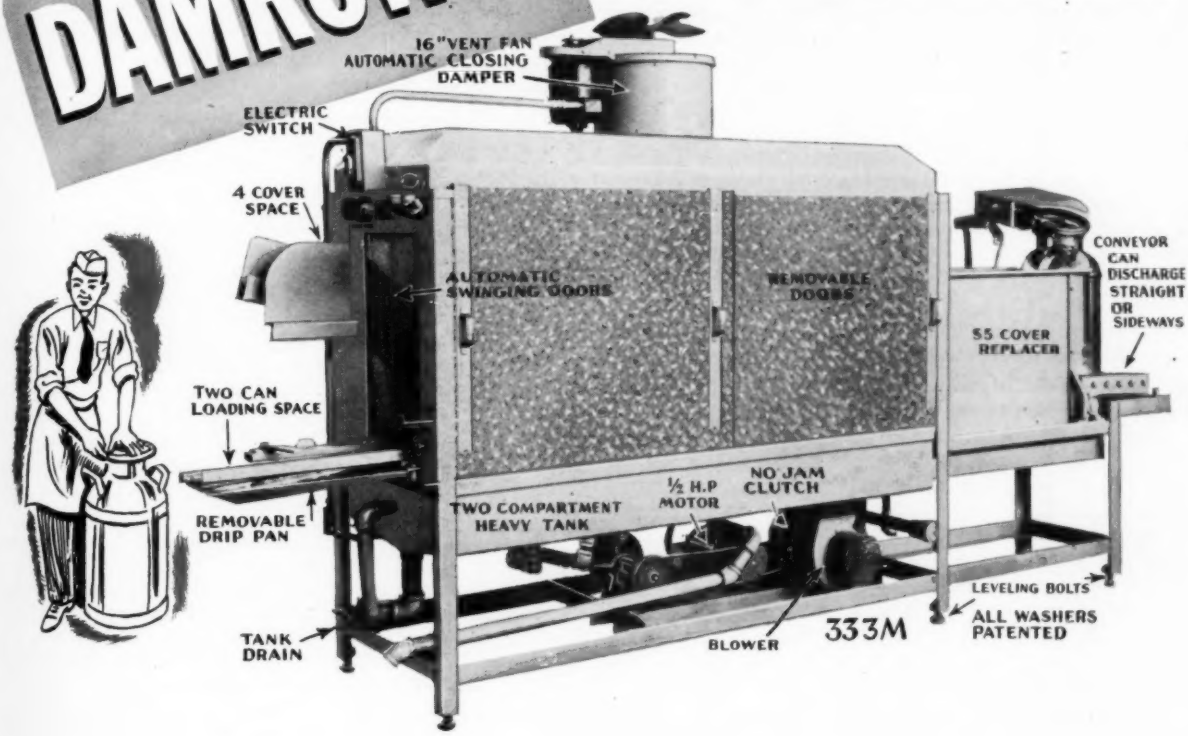
CERTIFIED "Means Satisfied"

Certified Products Company

BIRMINGHAM 3, ALABAMA

When You Need Milk Cans Washed Economically...

There's a DAMROW "COLD AIR DRYING" CAN WASHER for YOU!



Make your next can washer a DAMROW! In the complete DAMROW line you'll find capacities to fit your needs exactly . . . to give you all the exclusive benefits of DAMROW advanced engineering in more effective, faster, more economical can washing.

DAMROW can washing, with famous *COLD AIR DRYING* helps protect your milk quality, speed up your receiving line at a saving in power, water, and labor. More effective multi-stage washing action makes cans cleaner, then they are *cold air dried* to prevent sweating and the development of rust, black spots and bacteria so harmful to your patrons' milk.

Add the extra protection of DAMROW Can Washing to your plant. Get all the details TODAY.

Check, Clip the Coupon for the Whole Story on DAMROW Modern Can Washing Efficiency . . .

DAMROW

COMPLETE EQUIPMENT FOR THE DAIRY INDUSTRY

Damrow Bros. Company

204 Western Avenue, Fond du Lac, Wisconsin

Please send us complete information on Damrow Can Washing with Cold Air Drying. Capacity, about..... cans per minute.

Firm .....

Address .....

City .....**State** .....

CLOSING SALES and HANDLING OBJECTIONS

By **M. F. WILLIAMS**

Branch Manager, The Fuller Brush Company

ALLOW ME TO DRAW upon your imagination for a moment. Let's travel back to the late 19th century before a salesman's job was in the class of a profession. Little was known about the art of selling as an important instrument in production and distribution. The salesman was called a drummer. He would go into a small town with a lot of ballyhoo to get attention. As his prospects began to rally around him, he would put on a show to attract interest. After he had the interest, he would show his wares and what they would do and how much they would save in time and money, and give testimonials; thereby creating a desire. Then he would bring about the close or an exchange of money for his wares.

So you see, we have four steps in a sale, steps which were understood years ago, but never were put into direct action.

Now the four steps of a sale: (1) attention (2) interest (3) desire (4) action or close. Simple, isn't it?

Think of what these steps have accomplished. Many of the conveniences that we have today—the automobile, the picture had to be painted as a mode of transportation, convenience, time saver, and the romance of sight-seeing; the washing machine, its ability to do the laundry just as well without the backache: the radio and its convenience and ability to bring distant points near: the telephone and the dictaphone as a money and time saver.

I mention these because we would never have had the distribution if someone had not been able to create a desire and had not had the ability to close the sale.

Now let us talk about the four steps in closing a sale:

I. *Attention*

Attention is created either by what the salesman tells a customer, or by what she has read, or by what she has seen in a window display.

II. *Interest*

Interest must be aroused in an article. People will not purchase goods unless they are interested enough to inquire about them; it is up to the salesman to make the goods worth twice their value. Try to picture to the customer how she could save time and money by using a particular article.

III. *Desire*

Desire is the most important point in all sales. A salesman must get the customer to want his own merchandise or particular article. How can you get a prospect to desire possession? First, by words; second, by action (demonstrate), tell her and show her the good points. Remember, action speaks louder than words.

IV. *Action or Close*

The close means writing up the order, having the customer sign to acknowledge sale and delivery date, or filling out an application.

Let's go back tot the points on arousing interest. After you have gotten into seeing the prospect, how can you arouse interest. How can you get the customer to see your point? There are two methods that carry a lot of power in arousing interest; unusual openings and demonstrations.

1. *Unusual openings*

Use a phrase that will cut the customer's mind wide-open, one that will make her ask you a question instead of you asking her one.

You must use interest-getting statements.

(a) A salesman selling washing machines from house to house says to the prospect, "Mrs. Jones, I have a device here that I know you would be interested in because it means no more work or worry on wash day." "Why, how's that?" Mrs. Jones asks. Can you see how much different this statement is than saying, "Would you be interested in a washing machine?"

(b) A vacuum cleaner salesman interested a housewife this way. "Mrs. Jones, I have something to show you which means a cleaner house without a tired back." Now he doesen't speak of a vacuum cleaner until he is in the house. He is not selling a cleaner; he is selling what it will do for her.

(c) I had an insurance salesman call at my office one day and make this statement, "My boss just gave me hell on account of you. Can I take a couple of minutes and tell you about it, Mr. Williams?" Naturally, that aroused my curiosity, and I wanted to hear his story. That, to me, is the most unusual approach that I have ever heard in the insurance line.

(d) Arousing interest by the enthusiastic method. "Do you know, I feel that you are going to get a lot of genuine pleasure using this article. I just love to talk about it and demonstrate it because I think you will enjoy it every time it is used." Enthusiasm cannot help but be radiated to someone else.

2. *Demonstration*

I am a firm believer of the demonstration method to arouse interest because people only remember one tenth of what they hear and three tenths of what they see. As Emerson once put it, "Action speaks louder than words." In a demonstration you have a chance to show what an article will do, along with pointing out all the good sales features of a particular item and letting the customer try it in order to be convinced.

(a) The U. S. Rubber Company, sometime ago, used a demonstration called tempered rubber. They gave an oblong piece of rubber to a prospect with instructions to try and pull it apart. Of course this was almost impossible, and to the last they got their point over.

(b) Firestone Rubber Company used cross cut sections of tires showing the gum dipped rubber and two extra plies under the tread. The company showed these in comparison with competitive tires, and a person could readily see that the Firestone tire had an advantage.

(c) An Electro-Lux refrigerator salesman in talking with a customer, lit a match, putting it up close to her ear, said, "Do you hear anything?" "No" was her answer.

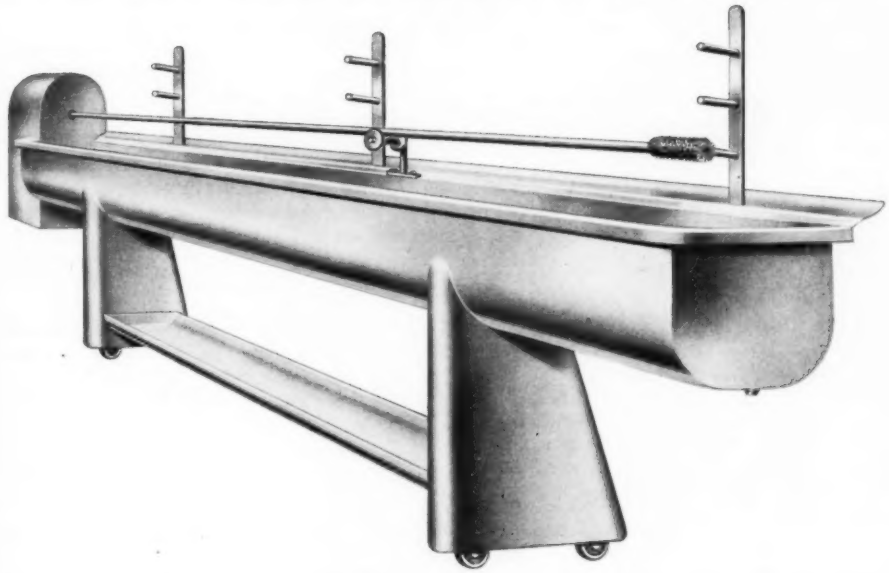
XUM

STREAMLINE YOUR PLANT WITH A

Stoelting

SANITARY

PIPE WASHING MACHINE



The smooth operating water pressure mechanism makes certain spotless pipe interiors, free from possible milk contamination, positively removing bacteria and milk stone. There is no marring of pipe interiors.

Can be purchased as a complete machine, tank only or Washing Drive Mechanism only for mounting on any type tank or table.

Mounting bracket furnished.

Sturdily constructed to last a lifetime. Write today for complete information.

Stoelting Features

1 – Tank, 14-gauge Heavy Galvanized Steel
2 – Covered Drive Mechanism
3 – Centrifugal Water Pressure Pump
4 – Welded Construction
5 – Wood Roller Pipe Rest
6 – Wide Back Apron
7 – Correct Working Height
8 – ¼ H. P. Master Motor

STOELTING BROTHERS COMPANY

KIEL, WISCONSIN

Then the salesman proceeded to tell her that the automatic Electro-Lux Refrigerator did the same thing; no noise or sounds, when turning on or off, to bother her.

(d) A cutlery salesman walked into a hardware store, asked the manager if he had a small piece of copper wire, took a small pair of scissors out of his pocket and cut the wire into small bits. He then ran his finger across the edge of the scissors, handed them to the manager, and said "Just run your fingers along these blades." Because the salesman did it first, the manager did it. (It was a positive reaction). "Just a moment, please." He got his sample case from the front of the store and went ahead with his sales talk. He had aroused interest immediately in his demonstration.

A. *Handling Merchandise*

Another important point in demonstrating is the handling of the merchandise. Take a jeweler. Many of you recall going into a jeweler's shop to look at a ring or watch. The jeweller pulls out a small piece of velvet cloth and lays it on the counter. He handles the merchandise as though it were worth three times its value. The same in buying a pair of shoes. You have walked into the shoe store where the salesman, in pulling a pair of shoes out, took his sleeve and shined the toe of the shoe, and handled it very carefully. He built up appreciation of value. Another shoe salesman would take a shoe out of the box, bend the back of the heel cap and spring the sole back and fourth, then drop the shoe on the floor while he pulled your shoe off. There is a tremendous difference in building the appreciation of value by just the way merchandise is handled.

B. *Asking Questions*

In demonstrating, don't make it easy for a prospect to say "no". Make positive moves and ask positive questions. Make it easy for the customer to say "yes"; such as, "You like that feature of the brush, don't you, Mrs. Jones?" "Yes, I believe I do." Don't say, do you like this or that, or do you want to buy a vacuum cleaner, or you don't want to to buy, etc. It is easy for the prospect to say "No, I don't." Now this is a little point, but it is poor salesmanship that gets the customer in a negative frame of mind.

3. *Desire*

Desire is the strongest tool in selling. When the customer is interested and is asking questions, desire is at the point of being created. To create desire, you must use figures of speech, draw upon the customer's imagination, and paint a picture for her in her mind; make logical, concise, and definite statements.

Think for a moment of the phrases that some of the large companies use in creating a desire: "Pause for refreshment"; "I'd walk a mile for a Camel"; "Sunkist oranges"; "Ask the man who owns one"; "Mack truck with the bull dog pull"; "Hammer the hammer". These phases have power in them because they paint a picture.

Montgomery Ward says of their mattresses that they are smooth, even, and buoyant as a feathered pillow. Other salesmen say: "Yes, this is a good mattress." Can you see the difference in making a logical and definite statement?

A salesman must point out a definite need, use, or advantage for his article. Get the article into the customer's hand so that she will feel the pride of ownership that creates desire.

4. *Action or Close*

When you have said enough so that the customer says, "Yes, I like that, what's the price?", or "How soon can I get one?" Stop! The desire has been created. It is time to get the signed order. Never give the price until the customer asks for it. Sell quality first. Get the customer to ask the price, that denotes interest. If the proper steps have been followed, the price is a minor point. When telling the price of an article, tell it in a low, confidential tone and use "only" three forty-nine. "Only" and the omission of the dollars has a very effective influence on the customer's mind, because you have built the article up to twice its value and then you say "That's the nicest part about it, it is only three forty-nine" and not $3.49. The price then sounds low, and quality remains high.

Remember, if you have built for proper attention, appreciation of value, desire, the customer will take the goods away from you. Customers object to being sold, but do not object to buying.

Positive suggestions and motions should be made in closing. I heard of a clergyman some time ago who lost several hundred dollars because he didn't follow through with positive motions. In the course of his talk he said, "Now you will find in each pew a little card with a pencil attached to it. Reach in and take out one of these cards." He did that himself, most everyone in the congregation did likewise. He then said, "Now take the pencil." While everyone had the pencil in their fingers, ready to write, he went ahead and gave a long talk, giving reasons why everyone should sign the card. At the end of his appeal, he said, "Sign your name on the bottom line." Then he went into another sales talk. He did not sign his own name on the bottom line, but put the card into his pocket. Naturally, people were listening to him and following his positive motions. When he failed to sign the slip but put it back in his pocket, most of the people did likewise; put the card in their pockets without signing. You can see the tremendous difference it would have made if he had continued on and signed the card himself before putting it away.

Choice of Something

When closing the sale, give the customer a choice between something and something; and not between something and nothing. This is a small point, but very effective. You can learn a lesson from the little newsboys on the corners. One will say "Times, sir?" You will say "No", and pass him by. Another will approach you and say "Courant or Times, sir?" which is a choice between something and something, and whichever way you decide you commit yourself to buying.

Closing and handling objections involves many ideas but should not be a stumbling block to most new salesmen because of their inability to close at the right moment. According to a very successful insurance company, there is no such thing as a right moment to close a sale. They say a sale is a continuous process. There may be a point at which some aspect of selling is emphasized more than others, but the process itself is continuous. Different questions are asked and a change is made in the tactics used in different parts of the sale quite naturally. Just as different questions are asked and different topics are discussed in a conversation. The capable salesman begins closing the minute he goes into action. There is no point at which he begins to close the sale. The salesman merely presents different features of his article to locate interest and create a desire. He must then watch for customer reaction to close the sale.

The A B C in selling is *Always Be Closing*. Use the trial method of closing often, that is . . . . after showing and telling of an interesting feature of an article, ask a question to see if the customer is in a positive frame of mind. We must ask for the business. "You like that feature, don't you?" "Yes, yes." "How soon would you like to have it delivered?" If the customer isn't in a positive frame of acceptance, give more sales points and start over again. Never tell the whole story until you have tried two or three trial closes. Keep something in reserve for a final close.

A very prominent sales manager once said, "There are three ways to get business . . . . see the people, see the people,

see the people. Yes, that's true, but we must not forget to *ask for the business.* So let's combine this phrase and say: see the people and ask for the business.

Handling objections goes hand in hand with the closing of a sale. Webster defines an objection an "an adverse reason or argument." To the salesman an objection means, "I'm not ready to buy." Or, "You haven't shown me anything worth my money."

A good salesman knows that an objection is a sales aid and not a refusal to buy. When a customer raises an objection, it usually indicates interest and the need of more facts.

A salesman should always answer the objection and not put it aside. An objection sidetracked usually gives the prospective customer the wrong view point and results in a negative frame of mind.

An experienced salesman will use this phrase, or something similar: "I am glad you brought that up . . . I was going to explain that . . . or . . . That is a good question."

Can you imagine any sale where no objections are raised? So be prepared with reserves to answer all objections.

Two Ends

The Lord gave us two ends
One to sit on, the other to think with.
A man's success depends upon which he uses most.
In case of heads, you win; tails, you lose.
Take your choice.

●

A Half Million Dollars

International Association of Ice Cream Manufacturers Spend Huge Sum on Outstanding Public Relations Program

BENJAMIN C. BROWN, president of the international Association of Ice Cream Manufacturers, has disclosed that over a half million dollars has been spent on educational projects since the beginning of the Public Relations Program. In making public these figures, President Brown declared, "This year we start our drive for new public relations funds under the ridiculously new low rate of three-tenths of a mill per gallon. This drive should have the support of every manufacturer, both large and small, for never was there a time when we needed a sustained educational program more than today.

"The growth of this industry—the doubling of our gallonage from 1942 to the present time—is the result of a lot of good hard work in connection with national ice cream promotion, and our opportunity to reach that billion gallon goal is directly hinged upon our willingness to continue a strong program of consumer education.

"The research projects, the national advertising, the educational pieces and the industrial motion pictures that have been informing the American consumer of the merits of ice cream have been effective.

"From the funds collected," Mr. Brown stated, "we have been able to pay the National Dairy Council nearly $300,000 to produce motion pictures—materials—exhibits—and to carry on a national advertising and contact program which has operated so successfully during the last two programs. This part of our program is known as the National Ice Cream Nutrition Program, and this work makes possible the successful operation of state and local ice cream programs.

"The new program is to be a continuing one. It has been voted as a permanent work of the International. It merits, and I know it will have, the support of every ice cream manufacturer."

1. FRICTION GRIP
. . . sandpaper-rough surface

2. EASY APPLICATION
. . . no tear-up — no tie-up

3. IMMEDIATE USE
. . . no curing period necessary

4. LOW COST
. . . thrifty, "pin-point" installation

Here are the four big reasons why safety men insist on Foothold Safety Tread for the prevention of slip and fall accidents. The unbeatable combination of these quality features insures safe footing that pays double . . . cuts accident losses . . . speeds footwork. See for yourself why Foothold Safety Tread is the ideal non-slip. Let us install a gratis sample cleat at some hazard area for your inspection. Just write us on your company letterhead.

BEHR-MANNING
(DIVISION OF NORTON COMPANY
TROY, N. Y.

FOOT AND MOUTH DISEASE

New Tactics Adopted in Fight on Livestock Menace South of Rio Grande — Slaughter Program Curtailed in Face of Armed Resistance by Mexican Farmers

THE STERN MEASURES OF slaughter and decontamination that marked the early attacks on the foot and mouth epidemic in Mexico have been modified by joint agreement between Mexican and American officials. Although the intention to completely eradicate the disease has not been altered by the two governments, the difficulties of carrying out the program of slaughter and the terrific impact that the procedure was having on the Mexican economy caused authorities to adopt new methods.

The revised program places its emphasis on quarantine, vaccination, inspection, slaughter, and decontamination. The procedure varies from the first proposal in the use of vaccine, and the slaughter of susceptible animals rather than the slaughter of all animals in the infected area.

The new program consists of seven steps.

(1) Hold and strengthen the northern and southern quarantine lines.

(2) Establish buffer zones immediately within these lines, in which movement of susceptible animals is restricted.

(3) Conduct repeated inspections of all susceptible animals within the buffer zones.

(4) Quarantine infected premises within the buffer zones or in the free areas in case infection should pass the northern or southern quarantine lines. Slaughter and bury susceptible animals of infected and exposed herds in the buffer zones or free areas.

(5) Arrange for the purchase or production of effective vaccine and vaccinate as soon as possible susceptible animals in the buffer zones.

(6) Move the buffer zones and quarantine lines toward the infected area as rapidly as safety will allow.

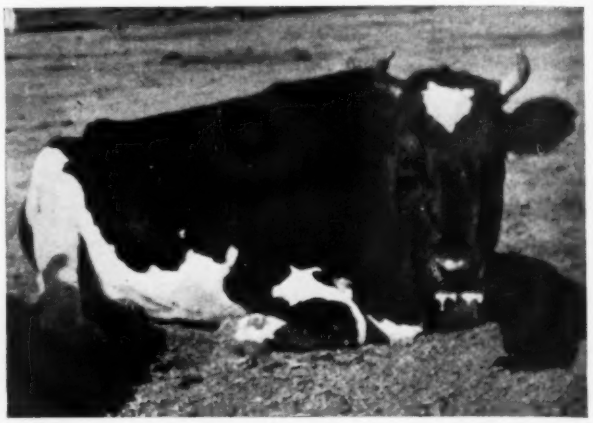
(7) Establish and maintain disinfection stations and procedures at arteries of travel through the buffer zones and use other precautions to prevent the spread of infection to clean areas.

Progress Has Been Made

"In a recent evaluation of the situation in Mexico, Secretary of Agriculture Anderson was emphatic in pointing out that modification of the eradication program was due to social and economic forces rather than the technical failure of the slaughter program. The Secretary said that during the first eight months of the program the joint eradication forces of Mexico and the United States slaughtered and buried 500,000 cattle plus a smaller number of hogs, sheep, and goats. By the fall of last year the rate of slaughter had reached as high as 28,000 cattle and 30,000 small animals a week.

The disruption of Mexico's agrarian economy, wreaked by this toll of her animal resources, was enough to start actual armed rebellion. On one occasion eight soldiers and a veterinarian were ambushed by a group of farmers. Eight of the nine were killed.

Secretary Anderson pointed out that this resistance had a precedent in the United States. During the course of a tick eradication campaign in 1922 two men were shot from ambush while carrying out eradication work in one of our own Southern States. The killing was followed up by a notice stating that any person who came into the county to enforce cattle dipping would receive similar treatment.



The telltale foamy muzzle marks another victim of Mexico's Aftosa.

The Secretary of Agriculture re-affirmed the intention of both the Mexican and United States governments to pursue the campaign against the disease until the scourge is completely eliminated. Coincidental with the change in tactics came the announcement that the campaign has progressed to the point where it has been possible to shift the quarantine lines. This moves the area of infection nearest the United States 50 miles further south and puts 350 miles between the international border and the northern-most occurrence of the disease.

Quarantine lines are held by inspection crews and patrols. Some fencing has been undertaken. A section of fencing is now being constructed from the vicinity of Tamiahua in the State of Veracruz to Tamazunchale in San Luis Potosi. Additional fences have been proposed and studies, followed by surveys, have been made. Some of the fencing is through dense jungles requiring mechanized equipment to clear a path. Supplementing the quarantine zones is a 24 hour patrol on the international border. This is a mobile force using cars, jeeps, and horses that patrols the entire border. The force operates on a seven hour shift.

Vaccines To be Introduced

The use of vaccines is the most startling phase of the new program and constitutes a reversal of the earlier position taken by the Commission. It was held at the beginning of the campaign that known vaccines were not adequate and did not give complete immunity. This feeling was reinforced by previous experience and tactics in the United States where nothing short of slaughter and decontamination had been tolerated. The experience of European nations, where foot and mouth disease is chronic, tended to support this view. Furthermore, American veterinarians have not had the opportunity of doing research work on foot and mouth vaccines due to the existence of laws prohibiting the importation of foot and mouth

virus into this country. It is understandable why livestockmen should view such experimentations with alarm in the light of the gypsy moth and the starling, both prime pests, that were first introduced for experimental purposes.

Vaccination, according to officials, while not as conclusive as slaughter and burial, does have some merit. The officials are quick to point out that vaccination by itself is not adequate but that it must be used in conjunction with quarantine, slaughter of infected and exposed animals, and decontamination.

The lack of research facilities for foot and mouth disease in the United States has prompted the Department of Agriculture to send a group of veterinarians to Europe for study. The three scientists, Dr. L. O. Mott, Dr. H. W. Johnson, and Dr. E. A. Eichhorn, all of the Bureau of Animal industry will work in England, Holland, Denmark, and Switzerland where foot and mouth disease laboratories are already in existence.

The studies to be pursued by the United States scientists in Europe cover four principal projects. One is the study, through animal experimentation and serological means, of the various types of foot-and-mouth disease virus. Another project deals with the methods of preparing and testing vaccines, made from Mexican and European strain of viruses.

A third project involves procedures for diagnosing the disease. And the fourth consists of investigations of the chemical physical, immunological, and other properties of the viruses. In the work outlined, the experimental animals used will include cattle, swine, and guinea pigs. The duration of the assignment depends both on the rate of progress made and needs that may develop with respect to research work in Mexico and United States, all of which are to be closely integrated.

Propose Research Laboratory

Although the Mexican scourge is well removed from the United States, dairymen have been properly concerned over the possibility of its spread to this country. Secretary Anderson has said, "The foot and mouth disease is not solely a problem of the range country. It is an equally serious threat to the dairy industry of Wisconsin, the Northeast, the West Coast." Further evidence of the determination of American dairymen not to be Pearl Harbored by the disease is the recent conference held at Albany, New York. The conference, held in the office of Chester Du Mond, Commissioner of Agriculture for New York State, was held to acquaint State and Farm organization officials with tentative plans to establish a foot and mouth disease research laboratory in New York State. It was stated that bill is now before Congress to authorize such research. Long Island is under consideration as a possible location for a research laboratory if such authorization is given.

In answer to objections arising out of the fear that working with foot and mouth virus, it would have to be imported, might result in an outbreak of the disease in the Northeast, Dr. W. A. Hagan, Dean of the New York State Veterinary College declared that the dangers of escape of virus are nearly negligible. Dr. Hagan went on to say that "It is the belief of many scientists that the danger of importing virus from other countries, especially through rapid air transportation, is much greater than those that would ensue as a result of the operation of a laboratory such as is now being planned."

The conference was explorative in character and no action was taken. Commissioner Du Mond said, however, that neither he nor the Department of Agriculture in New York would approve the locating of a research laboratory on Long Island until such time as the Department is satisfied that the livestock interests in the State of New York fully understand the possible hazards and are willing to assume responsibility for any possible spread of the disease from such a laboratory.

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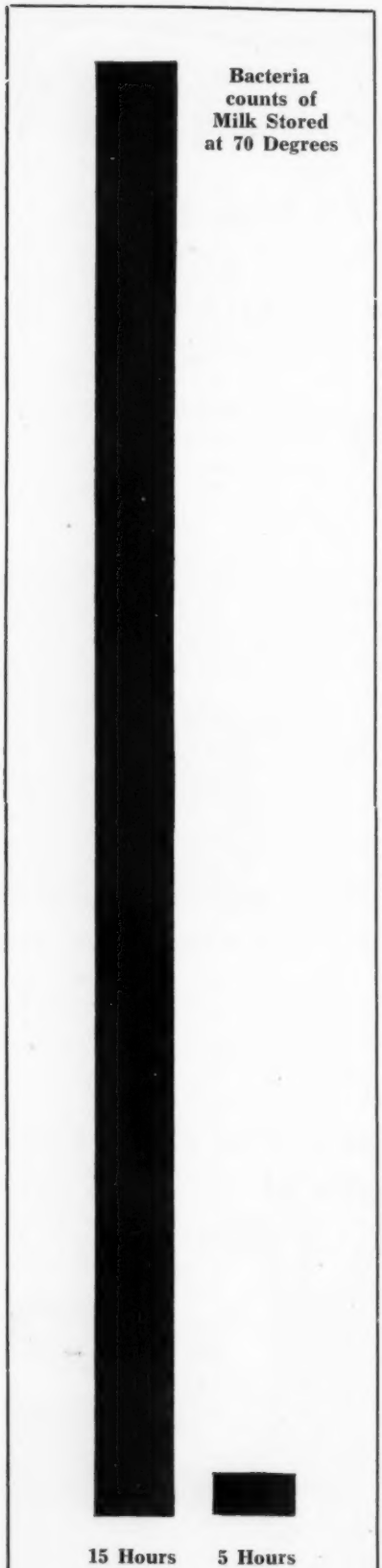


Practical Aspects of MILK HYGIENE

By C. S. BRYAN
Section of Surgery and Medicine

THE OVERALL PICTURE of a city milk supply is complex, but an understanding of its various aspects is essential if one is to comprehend the far-reaching effects of any advice in milk hygiene given a dairyman. The milk picture for the city of Lansing, Michigan, with a population of almost 100,000 will illustrate a typical setup:

10,000 cows producing the milk on
1,000 farms with
45 haulers conveying the milk to the
10 city milk plants where it is processed, and delivered to the consumer by
120 wagons and trucks (100 retail, 20 wholesale)

The health of the cows and the methods of caring for the cows, the utensils, and the milk on the farm determine the type of milk that is produced. The need for adequate barn and milkhouse facilities and dairy equipment is recognized, so no data are presented on these subjects. An appreciation of the influence of each essential item upon the quality of the milk will stimulate the correction of conditions, where needed, to make possible the production of good and safe milk.

Clean and Healthy Cows

The health of the dairy cow is the keystone of a safe milk supply of high quality. The fitness of cattle to produce such milk is determined by their freedom from disease. Under no circumctance should the milk be used if the cattle are obviously suffering from any disease. The Pie Chart reveals the influence of udder infection on the quality of milk produced, for in each case of udder infection the percentage of cattle producing milk with a bacteria count of over 1,000 increases greatly.

The influence of cleanliness of the cow on the bacteriological quality of the milk produced is presented in Table 1. These results indicate the value either (a) of clipping the long hair on the udder and rear quarters several times a year, by reducing the number of bacteria per cc. from 20,000 to 5,000, or (b) of disinfecting the udder and teats prior to each milking in maintaining the high quality of milk, indicated by the bacteria count of 6,800, as it is obtained from the healthy cow. Best results were obtained when both clipping and disinfecting were done, for here the bacteria count of milk produced was only 550. The necessity for having clean premises — such as lots, lanes, etc.— and the value of barns that are clean and well bedded, are obvious in quality milk production.

Clean and Healthy Handlers

The clothes of the handlers should be clean, especially during the milking process, so as to preclude the possibility of them ever becoming a source of contamination. Since the hands have a more intimate contact with milk a study of their influence is indicated. An opportunity presented itself to study the bacteria count of milk produced by hand milking under various conditions; the results are presented in Table 2. In all cases only clean and sanitized utensils were used to handle the milk, thus reducing to a minimum the bacterial contamination from this source.

The bacteria count of milk collected aseptically was normal for healthy cows, being 300 and 400 respectively for the two groups of cows. The dry brushing of udders prior to milking was not enough to prevent dandruff and some other debris with bacteria from falling into the milk as revealed by the 16,000 count of milk

TABLE 1—The bacteriological condition of the milk produced by hand milking of apparently clean, healthy cows under varying management conditions (A chlorine solution of 300 parts per million of available chlorine used for disinfection)

Management condition		
Hair on udder and rear quarters	Disinfection of udder and teats	Bacteria per cc. of milk
Not clipped	None	20,000
Not clipped	Yes	6,800
Clipped	None	5,000
Clipped	Yes	550

The Bacteria Count of Milk Produced by Healthy and Diseased Cows

Black wedges represent percentage of samples with more than 1000 bacteria per c.c. of milk. White wedges percentage of samples with less.

from the apparently clean cows and 350,000 from the obviously dirty cows. Wiping with water alone removed some of the gross dirt, but the bacteria count of milk obtained was higher, 56,000 for the clean and 425,000 for the dirty cows, than when only dry brushing preceded the hand milking process. Disinfection of the udders and teats, although not perfect, resulted in the production of milk with a very low bacteria count; 700 by the clean and 1,500 for the dirty cows. The value of clipping and disinfection is obvious from these results. A study of milk-borne disease outbreaks reveals the importance of health of the dairy worker.

Clean and Sanitized Utensils

Improperly cleaned and sanitized utensils may be the sources of many bacteria and may easily transform a high-quality milk to an inferior or even an unacceptable product. To demonstrate the value of proper cleaning and sanitization, rinse counts were made of utensils ready for use as found on the farm. A few days later an unannounced visit was made to each farm. This time the utensils were sanitized with a chlorine solution (50 p.p.m.) allowed to drain for 30 minutes, and were then rinsed with sterile sodium thiosulfate water to inactivate the remaining chlorine. Bacteria counts were made of all tese rinsings to determine the number of bacteria removed by the water (Table 3). Normally these bacteria get into the milk as the utensils are used during the milking process. These data are convincing evidence of the value of sanitization of all dairy utensils, especially those on the farm. *Clean* utensils have very few bacteria on their surfaces and, therefore, will not contribute many bacteria to the milk handled therein.

Milk is a good food for bacteria as well as for man and other animals. As it comes from the cow it is at a temperature ideal for multiplication of the bacteria that gain access to the milk. According to the data in Table 4 the practical procedure for dealing with these bacteria is to cool the milk immediately to 50° F. or lower and to hold it at that point until it goes to the receiving station.

Adequate Water Supply

Dairy animals need a constant supply of clean and fresh drinking water if they are to produce at a maximum. A similar water supply is essential for the proper cleaning of dairy utensils and for the cooling and storage of milk. Occasionally the water supply, used for these purposes, becomes contaminated with specific types of bacteria that produce undesirable changes in the milk besides being objectionable merely because of their presence. The ropy milk bacteria come under this category.

A review of two experiences will direct our attention to some of the aspects of overcoming the ropy milk problem. An outbreak of ropy milk presents the following two characteristics: 1) The milk is normal in physical appearance as it is obtained from the cows, and 2) A tenacity of the contaminated milk, and especially the cream, develops within 12 hours if the milk is not properly cooled. Several organisms, including some of the coliform group, are capable of causing ropy milk but the main one is *Alcaligenes viscosum*. The original source is not always known but stagnant water in the barnyard or pasture should be immediately suspected, while the immediate source is usually the coat of the cow or surface water that gains entrance to the well water.

Contaminated Water

In one case studied the milk apparently became contaminated, during milking, from the exterior of the cow. The cows were immediately prevented from gaining access to stagnant water in the pasture where they had gone to keep cool during the summer heat, but the ropy milk trouble continued. A thorough check-up revealed that the farmer always rinsed the stirring rod in the cooling tank between cans and between milkings. Thus the cooling tank water was inoculated from the contaminated milk on the stirrer. As a result of this insanitary practice the cooling tank water became heavily inoculated and, through the stirring rod, became the immediate source of subsequent contamination of the daily milk. A thorough cleansing and disinfection of the cooling tank and discontinuance of the practice of rinsing

(Please Turn to Page 88)

TABLE 2—The bacteria count of milk produced by the hand milking of healthy cows (whose udders had been clipped) that were either reasonably clean or reasonably dirty when the udders and teats were either dry, wiped with water only, or disinfected (solution of 300 p.p.m. available chlorine or 1 to 1,000 quaternary ammonium solution)

Appearance of rear quarters and udders of cows	Bacteria per cc. of milk produced: Collected aseptically from cow	After dry brushing	After wiping with water	After disinfection
Reasonably clean	300	16,000	56,000	700
Reasonably dirty	400	350,000	425,000	1,500

TABLE 3—Number of bacteria on dairy utensils

Farm	Equipment rinsed with 500 cc. of sterile water	Bacteria on equipment: Utensils ready for use as found on the farm	Utensils sanitized with chlorine
1	1 pail and 1 strainer	28,000,000	1,500
2	1 pail and 1 strainer	700,000	500
3	1 pail and 1 strainer	2,000	1,000

TABLE 4—Bacteria counts of milk obtained upon the storage of milk at different temperatures for varying periods of time when cooled to those temperatures immediately after prodduction.

Period of storage	Bacteria count of the milk: Original count 5,000 Temperature of immediate cooling 40° F.	50° F.	60° F.	70° F.	Original count 100,000 and storage of milk 40° F.	50° F.	60° F.	70° F.
5 hours	5,000	5,000	5,000	7,500	100,000	100,000	100,000	340,000
10 hours	5,000	5,000	6,000	28,000	100,000	100,000	180,000	870,000
15 hours	5,000	5,000	12,000	200,000	100,000	150,000	300,000	2,000,000

Should We Get Wise? - Let's Analyze

By Kenneth L. Chase

White Brothers, North Quincy, Mass.

I married a traveling Salesman
Ten years ago next week.
We lived on Spring Street, Newton
'Twas hard to make ends meet.

Until at last I found a way,
A system smooth as silk.
My budget balanced – all bills paid
If, I got free milk!

The way I worked that little plan,
Was certainly enlightening.
The first upon the list, I think,
Was long enduring Whiting.

We moved that Fall – I forget the stall
We gave as we departed.
The bill I know, was never paid,
That's how my system started.

Our daughter was born in Quincy.
We took our milk from Hood.
You know that Harley Lockhart guy,
We stuck him right, but good.

We moved from there to Framingham,
Our system was the berries.
I think our milkman over there
Was Geoghan's Sunshine Dairies.

We slipped away one rainy night
And moved along to Worcester.
We had a little trouble there
The wonderful little Rooster!

Farrar was his name, I think,
From Cutting's Hillcrest Farm.
I slammed the door as he came to collect
And nearly broke his arm.

We were evicted after that,
No home – No job – No salary!
We were broke – completely flat,
Until we heard of Mallory.

With his good milk, his cream and cheese,
He saved us – Raise the Flag!
But what the heck, our scheme still clicked,
While Roger held the bag!

When he got wise, we turned
Our eyes around to Alfred Smith.
He kept us on his books so long
He thought we were a Myth.

By now our twins were two years old
They certainly were charmers.
We moved to Somerville that Fall
And took United Farmers.

Ken Lamphrey did his best with us
He pleaded and cajoled,
The balance kept on going up
No matter how he'd scold.

He soon got rough and we got tough
And changed to Les MacAdams
But did we worry? No, not us,
We blew his bill to atoms.

Among that list that lost their dough,
Were Cosgrove, Ford and Griffin.
We moved so much, I can't keep track,
We surely had them spinning.

One Summer down in Taunton,
We took from Ted Devine.
The weather was grand, the cottage too,
The scenery just sublime.

I imagine Ted's still looking,
Remembering with regrets
That our account that Winter
Was "charged off" to Bad Debts.

We got back to the City
And Herlihy took us on.
It was nice to get acquainted with
Charlie, Jim and Tom.
Each in his turn, God Bless Him,
Would carry us along.

They began to get wise to our system
And viewed us with alarm.
We then found it convenient
To switch to Deerfoot Farm.

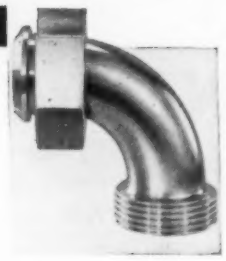
There was a time just after that
When hubby ran a store,
We stuck them by the dozen then
And even by the score.

Woe be the day when they get wise
And clear with one another.
When they find out how much they've lost,
There'll be some swearing, brother!

These past ten years we've taken milk
And never paid a dime.
I see no reason to start now,
We get along just fine.

My system is still working,
Yes, working smooth as silk.
Who's calling, please? Oh, yes! Oh, yes!
Ken Chase, White Bros. Milk!

This poem was read by Mr. Chase at the recent convention of the Association of New England Milk Dealers. Mr. Chase, as credit manager for White Brothers, speaks with feeling and knowledge on a subject that is, unfortunately, too often a fact.



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XUM

NEW ENGLAND MILK CONVENTION

Sales Clinic Is Outstanding Feature of Dealer Meeting in Boston — Market Administrator Announces New Formula to Be Included in Federal Order

By **NORMAN MYRICK**

SHUTTLING BETWEEN BALLROOMS dedicated to Louis XIV and a nameless Princess, 400 members of the New England Milk Dealers Association heard fifteen able speakers address the Fourteenth Annual Meeting of their organization at Boston's Hotel Somerset March 24 and 25. At the business meeting Theodore J. Devine, Taunton, Massachusetts dairyman, was chosen as President of the New England Dealers for the coming year.

The Convention, held against a background of uncertainty and the lava flow of international unrest, featured a revival of thinking along salesmanship lines. The renewed emphasis on going out after business was reflected in the first rates Sales Session held Thursday morning. Dairymen Ted Devine, Harvey Kimball, Les MacAdams, Ken Chase and the Eastern Manager of the Fuller Brush Company, M. F. Williams, discussed Better Selection of Sales Personnel, Better Training of Sales Personnel, The Routeman's Job in Better Customer Relations, Better Control of Credit, and Better Selling.

Drawing upon the vast accumulation of sales know-how that the Fuller Brush Company has gained through years of door-to-door selling, M. F. Williams laid down the fundamentals of the type of salesmanship required in the dairy business. Williams listed four steps in the process of better selling, get the customer's attention, draw out the customer's interest, create a desire, and close the deal. "Selling," Mr. Williams said, "is a profession. It requires skill and planning and understanding." The speaker listed the process of seeing merchandise as the most valuable phase of selling. An evaluation of the part that the five senses play in developing a sale found taste valued at 1.5 per cent, smell at 1.5 per cent, touch at 2 per cent, hearing at 10 per cent and seeing at 85 per cent. "Don't sell things," Mr. Williams warned, "sell ideas, benefits, wants, needs." "Always give the customer a choice of something and something," he advised.

Problems in Credit

The desirability of a system for the exchange of credit information was underlined by Kenneth L. Chase, Credit Manager for White Brothers Milk Company of North Quincy, Massachusetts. Mr. Chase pointed out that large amounts of money are lost each year through bad bills and that much of this loss could be avoided if the experience of one company could be made available to another. He stated that credit rating information was exchanged among department stores and other types of distributing organizations. The speaker also emphasized the need to "keep turning dollars over," and declared that "business would be a lot better if the cash were in the till rather than on the books."

Mr. Chase deplored competition in credit. He saw this type of competition, the practice of offering increasingly liberal credit terms to customers in an effort to get their business, as a serious problem. "The practice is growing not only in our business," the speaker said, "but in many other types of enterprise." "Dont let bills get too big before taking some remedial steps," Mr. Chase advised. He suggested that one of the best methods of collecting balances was to set up a schedule of payments at regular intervals. If the schedule calls for a dollar a week collect the dollar each week, no more and no less. If the customer gives you more than the dollar give her back the change. If you don't you may collect two dollars one week and nothing for the next three."

H. F. JUDKINS

Discusses role of colleges in Dairy Training Program.

Good Men Are Essential

Other speakers on the selling program hammered away at the necessity of selecting good men to begin with and following up with adequate training. Routemen are deliverymen, salesmen, and public relations men combined it was pointed out. In order to do a good job a sound training program is necessary.

Probably the most startling and at the same time the most anticipated piece of information to come out of the convention was the announcement by Richard D. Alpin, Federal Market Administrator for Boston and the Lowell-Lawrence market, that the famous Boston Formula would be written into the order for these two markets "to become effective in April." The Market Administrator explained the formula and said that among other new features was a provision for price changes to take place in units of 22 cents rather than the traditional 44 cents. Mr. Aplin demonstrated how the three bases to which the new formula was tied, U. S. Wholesale prices, New England Department Store sales, and the Grain-Labor index worked. He said that these factors were selected as the best measure of fair milk prices. "The old butter–powder–formula," the speaker said, "no longer reflected milk prices in the Boston Market."

A shot in the arm to New England businessmen and confusion to the pessimists who saw the twilight of New England industrial pre-eminence was voiced by Lawrence F. Whitte-

more, President of the Federal Reserve Bank at Boston. Mr. Whittemore pointed out that since 1940 the population of New England has grown more rapidly than any other section of the country with the exception of the West Coast. "There have been 430,000 more people move into New England in the past eight years than have moved out." the speaker declared. "The biggest factor in the movement of people from one locality to another is the job opportunity," Mr. Whittemore said. He pointed out that the tremendous diversification of New England industry made the job opportunity in that section second to no other section in the nation.

"I am not a starry eyed optimist," Mr. Whittemore said, "but I believe that New England will at least do as well as the rest of the country in our future economic development. Our economy may not rise as high as it will in other sections but it also will not fall as low."

Dairy Training Discussed

The increasing importance of good industry-educational relationship was stressed by Dr. H. F. Judkins, of Sealtest, Inc., who spoke on The Industry's Responsibility to the University in Dairy Training. Dr. Judkins, a former educator himself, pointed out that purely vocational training does not provide the best foundation for executive excellence. He advocated fundamental preparation in business administration and economics along with training in dairy industry. Prof. V. A. Rice, Dean of the School of Agriculture at the University of Massachusetts, responded to Dr. Judkins address with a talk on, The University's Responsibility to the Dairy Industry. Following his talk Dean Rice presented Dr. D. J. Hankinson, newly appointed head of the Department of Dairy Industry at the University of Massachusetts. Dr. Hankinson, who succeeds J. K. Frandsen, urged the establishment of an advisory committee from the industry to work with the Department of Dairy Industry at the University in developing an adequate training program.

A feature of the Plant and Laboratory Forum conducted by Clarence R. Klock and John B. Tuthill was a series of prepared questions gleaned from membership inquiries. The questions were divided up into seven categories and dealt with materials handling, processing, detergents and cleaners, butterfat and product shrinkage, accounting control to lessen package loss, packaging, and operating problems connected with building construction. Discussion was carried on by dairy men in the audience with a large degree of enthusiasm. Some of the questions that provoked spirited expression of opinion were "What is the experience with comparative breakage on square vs. round bottles?" and "Is there any answer to package control except container charge?"

Convention arrangements were in the hands of Roger P. Mallory of Springfield, Massachusetts and Charles E. Herlihy of Herlihy Brothers Creamery, Somerville, Massachusetts. James I. Woodsom, Managing Director of the Association of New England Milk Dealers was largely responsible for the execution of the Convention program. A huge banquet presided over by Harry L. White of the New Haven Dairy, New Haven, Connecticut, was held in the Somerset's Louis XIV ballroom. Howard W. Selby of the United Farmers of New England, a producers cooperative was the principal speaker. A brilliant entertainment was provided by the Convention Committee and included some of the foremost Boston night spot entertainers. A chorale group from the University of Massachusetts capped the entertainment program with a short concert.

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A Page Devoted to the Dairy Industry in Canada

Milk Fight Looms In Vancouver

Producer Groups Disagree on Proposed Two Cent Increase in Consumer Prices—May Subsidize Milk

VANCOUVER, B. C.—Battle lines are being drawn up for the showdown meeting on the contentious milk price situation in British Columbia.

Issue is a request for a two-cent a quart hike in consumer prices. A public hearing before E. C. Carr, B. C.'s one-man milk board, has been set. Areas affected are: Lower Mainland, Fraser Valley to Hope, and Victoria, Nanaimo and Duncan on Vancouver Island.

Milk prices in Vancouver are now 15 cents for standard, and 17 cents for jersey.

Main representation for the increase will be from certain independent producers and from retail grocers seeking a boost in their present one-cent a quart profit margin.

Spokesman for the latter will be Wilfred Brown, chairman, grocers' division, Retail Merchants Association. Cost of refrigeration, breakages and general overhead expenses were cited as grounds for grocers' demands by George R. Matthews, R.M.A. secretary.

Independent producers and distributors asking increases generally base their demands on higher production costs brought about by removal of government subsidies, rising feed prices and labor costs.

Main opposition among dairymen is from the Fraser Valley Milk Producers' Association whose membership, according to a spokesman's estimate, includes approximately 75 per cent of all Valley producers.

They say further increases will result in decreased consumer purchases, and point to declines following past price hikes.

"You can't make the housewife buy two bottles when she makes up her mind she can get by with one," said one member.

They admit decreasing profit margins owing to increased material costs but are convinced price increases would not balance them.

Question of reinstation of milk subsidies is expected to enter discussion shortly. A brief by B. C. Housewives' Consumer Association protesting any increase will urge subsidies where necessary, Mrs. Marion Parkins, association secretary, said.

"We realize some production costs have increased considerably and feel subsidies are the only fair solution to avoid working hardships on some producers and possible consumer shortages," said Mrs. Parkins.

Provincial or federal government milk subsidies were urged recently by city aldermen.

Another brief protesting increases will be submitted by the Associate Council of Vancouver South, representing seven community organizations in the area.

●

DELIVERED MILK TOO EARLY; FINED

Vancouver, B. C.—Believed the first conviction under a bylaw preventing sale and distribution of milk before 7:30 o'clock in the morning, a milkman was fined in court this week.

Jack Ward paid the minimum fine of $2. and costs for delivering milk too early at the Avalon apartments.

The section of the city bylaw came into effect during the war years at the instigation of distributors. Among reasons given were to save disturbing persons early in the morning, a federal government order stating that all milk had to be paid for in cash, and to put delivery men on a normal daytime schedule.

DAIRY MAGNATE DIES IN MONTREAL

Montreal, Que.—George Hogg, 83, who started in the dairy business on Montreal Island 60 years ago as a farmer and distributor and became chairman of the Guaranteed Pure Milk Company Limited, died this week.

He served eight years as mayor of Westmount, Quebec retiring in 1933.

New Canadian Milk Marketing Plan

Ontario Dairymen ask for Legislation on Sales Across Entire Province—To Set Up Board To Control Milk

HISTORY was made at the annual meeting of the Ontario Whole Milk Producers' League in Toronto recently. The several hundred delegates, representing every whole milk area in the province, agreed almost unanimously to a new plan for the sale of the milk of the membership.

Briefly told, a marketing board will be set up to handle all the milk of all the members of the League.

The operations of the proposed Board will cover the province. As much milk as possible will be sold on the fluid market and the surplus of one area will be used to meet the whole milk deficit of another area. All surplus milk will either be sold to manufacturing plants or processed in plants to be erected by the Board. The price paid to producers will be a pooled price of all milk going into all channels.

The League executives were of the opinion that the realization of this ambitious plan will iron out a lot of contentious problems, such as the disposal of surplus and the butter fat test. It will give to producers a very firm control of their market, which is the most profitable outlet for dairy production. It would seem to be the dairy equivalent of the labor Utopia of the closed shop and the check-off.

To cap it all, the plan was given the blessing of Hon. T. L. Kennedy, Minister of Agriculture for Ontario, who was an interested listener to the discussion. "I don't like government interference in business," he said. "I want you to negotiate your own prices on the basis of cost plus a profit, to which every farmer is entitled, and then legislation to make that price law. I like that kind of a law."

The new plan was mentioned in the opening address of President Fenton McIntyre, Brantford, Ont., when he definitely stated that new policies were in the offing. Secretary Roy Lick ampli-

fied on the President's remark when he said that "it appears from the experiences of the last few months that, to afford our members proper protection, we may have to change some aspects of marketing milk. Because of the present method has worked fairly well for 14 years, it does not necessarily follow that it will work in the future. We live in a changing world and must change to keep abreast of the times."

The groundwork for the new plan has been laid over the years. The last year, however, has been one of intense activity. There were no less than 29 executive meetings. Two delegations visited the United States to study similar plans in action there—one to the eastern States and one that travelled from Ohio to Minnesota.

It fell to Clifford Weaver, Owen Sound, Ont., to present the plan to the annual meeting. It provides that each member must contract all his milk to the League for marketing and he agrees to the deduction of such fees as the Executive may find necessary.

Local associations will remain as at present and no change will be asked in the marketing legislation of the province, which is superior to anything studied elsewhere. The League will be financed as at present by deductions from milk checks. To erect new plants to handle surplus or facilitate the handling of market milk, deductions will be made from milk checks, payable on the revolving plan. Gordon Greer seconded the presentation of Mr. Weaver with a sketch of studies in the eastern states.

"What about new shippers?" he was asked.

"We will take on new shippers as needed, but we do not have to accept new shippers," replied Mr. Greer.

There was surprisingly little discussion from the floor of the convention and those who did ask questions were concerned with details that have not been worked out, and were not opposed to the general principle of the plan.

A resolution was passed immediately asking the provincial government to introduce the necessary legislation to put the plan to work.

The financial statement showed assets of $66,510.82 of which $43,000.00 was in Victory Loan. Receipts for the year were $80,014.36 which gave a small surplus over operating expenses. Collections from branches totalled $43,370.24.

The present high price for butterfat has caused dissatisfaction with the present price differential of 3½ cents per point fat in the sale of fluid milk. The meeting endorsed a sliding scale, such as prevailed previous to 1939. With fat at under 25 cents, the differential asked was 3 cents; 25 to 30 cents, 3½ cents; 30 to 35 cents, 4 cents; 35 to 40 cents, 4½ cents; 40 cents and over, 5 cents. League opposition to oleomargarine was unanimous.

"The dairy industry affects a greater number of people than any other industry in Canada," remarked R. A. Stewart, President, Ontario Federation of Agriculture. "All our groups must pool their achievements and experiences for the greatest good of the greatest number." He said that 79 organizations were already doing this in the Ontario Federation of Agriculture.

That 30 per cent of the children of Canada get less than a pint of milk a day was cited by E. H. Clarke as proof of the need of continued work by the Milk Foundation to increase the consumption of fluid milk. He told of the interest in the Foundation in western Canada and predicted that the three prairie provinces would have a Milk Foundation organized within a year. For local units of the Foundation he suggested financing with one cent a hundred of milk from the producers, and equal amount from the distributors and a committee of equal numbers of both to administer the funds and direct activities. W. J. Wood, Alliston, spoke for the Ontario Cream Producers.

Say Stop To Sheffield

Federal Trade Commission Hands Down Cease and Desist Order On Producer Relations After Seven Year Huddle

DIGGING INTO ANCIENT HISTORY, the Federal Trade Commission, after seven years of deliberation, came to the conclusion that Sheffield Farms Company, Inc., New York, was guilty of unfair trade practices. On March 4, 1948, as a result of the conclusion, the Sheffield Company was ordered to desist from unfair competitive practices in the purchase of milk from co-operative milk producers associations.

The Eastern Milk Producers Co-operative Association was named in the order. The Commission said that Sheffield created the Co-operative in 1922 and that in 1927 it was incorporated as the Sheffield Producers Co-operative Association, Inc. The Commission charged that the Company provided meeting places for the co-operative, controlled the election of officers, and sat in on the discussion of business. Producers who sold to Sheffield were made members of the organization automatically, while those who sold elsewhere were dropped according to the Commission.

The Commission stated that the Company had already given up most of the practices specified in the order but declared that this did not affect the validity of the order. The purpose of the order, the Commission said, was to end all such practices and prevent their recurrence.

Sheffields Makes a Statement

In response to the order of the Federal Trade Commission F. J. Andre, President of Sheffield Farms, issued a statement. Mr. Andre pointed out that the Commission found no basis for any criticism after 1939. He also pointed out that during the period under examination Sheffield paid higher prices for milk than "the largest producer's co-operative" and sold the milk to the public at competitive prices.

"The Federal Trade Commission's proceedings," Mr. Andre said, "started in November, 1941 and has been pending since that time. The Commission found no basis for any criticism of the business relations between Sheffield Farms Company and the Eastern Milk Producers' Co-operative Association after 1939, which was two years before the commencement of the proceedings.

"The order handed down by the Commission criticizes certain relationships between the company and the co-operative association during the period 1922 to 1939, a period when a great number of farmers in the New York milk shed were seeking the Sheffield Farms market for their milk and during which the total number of farmers delivering their milk to the company more than doubled. The reason was that farmers selling milk to Sheffield got more money for their milk than they could get by selling it to the largest producers' co-operative in the area. We paid these farmers over $37,000,000 more for their milk during that period of time and sold the milk at competitive prices to consumers.

"The company was not allowed to put these facts in evidence for the consideration of the Commission. These facts show that we contributed substantially not only to the welfare and prosperity of the farmers who sold their milk to Sheffield and to the communities in which they lived but also to their co-operative association."

Have You Seen The Want Ads?

RESEARCH REPORT

A GASEOUS INSULATOR WHICH will hold the highest voltages now generated is one of the most promising of fluorine research developments worked out by the Pennsylvania Salt Manufacturing Company's Whitemarsh Research Laboratories.

The gas is sulfur hexafluoride—one of the most stable gases yet found. Pennsalt technologists have perfected methods in their laboratory for making this gas in connection with their extensive research on uses of elemental fluorine and fluorine compounds.

Pennsalt scientists have been conducting one of the most extensive research programs in the company's history into all phases of fluorine chemistry at Whitemarsh. Thus far, sulfur hexafluoride is probably the most important fruit of this research.

Nearly Perfect Insulation

Greatest use of sulfur hexafluoride, which is made from elemental fluorine, arises from its nearly perfect insulating properties for extremely high voltages. The gas is extremely inert—much more stable than air and even more inert than nitrogen gas, commonly used as a gaseous insulator, scientists have found.

Sulfur hexafluoride has been used successfully to insulate the extremely high voltages used in x-ray and nuclear physics work. Its most notable use to date was at Massachusetts Institute of Technology to insulate the Van de Graaf electrostatic high voltage generator which produces millions of volts used in nuclear physics studies and related work. For this use the gas was made under laboratory techniques worked out by Prof. W. C. Schumb of M.I.T.

Experiments with sulfur hexafluoride have shown that by using this gas as an insulator, the voltage capacity of generators of this type can be doubled. They also can be reduced greatly in size with safety.

This is the most dramatic use of sulfur hexafluoride yet devised but other equally important applications are being studied carefully. Present high voltage x-ray machines have accomplished wonders in medical science and in other applications. But at present these machines have been limited in voltages and have been necessarily large because of insulation problems. Again, higher voltages and smaller size will be possible with the use of sulfur hexafluoride as an insulator.

Possible Use in Fire Extinguishers

Pennsalt scientists also are examining the possibility of using the gas as a fire extinguisher and as a refrigerant, similar to present uses of carbon dioxide. Sulfur hexafluoride is extremely heavy—five times as heavy as air and three and one-half times as heavy as carbon dioxide. Forced into the hold of a burning ship, for example, it would flow to the bottom and build up a non-inflammable atmosphere that would smother all combustion.

Similarly, because of its great density and stability, it could be used as a refrigerant to obtain very low temperatures as carbon dioxide is used to make dry ice. However, Whitemarsh researchers say that sulfur hexafluoride has several disadvantages which may make these applications remote. A primary disadvantage is that it would be much more expensive than carbon dioxide.

The research program for 1948 under the Research and Marketing act is underway according to information from Washington. Two projects on breeding, two on nutrition and sixteen on marketing are being undertaken. No research on herd health using RMA funds is being done at the present time.

Reserve Space On The Ark

Michigan Holstein Threatens to Bovulate Most of State — 4-H Club Animal of the 'Thirties Has Remarkable Record

WHEN FRANK STEVENS' original 4-H Club cow gave birth to her second heifer calf, back in 1930, it didn't make the headlines. In those days, 4-H work was still young, and Mr. Stevens was a member of the first 4-H Club in his Greenville, Michigan, community.

Today, however, that purebred Holstein calf is making history.

Still alive, still a high-producing member of Mr. Stevens' herd, Alice Martha Veeman has produced 14 bull calves, and is due to freshen in the fall.

From the original cow, Red Rock Martha Veeman, Mr. Stevens received 13 calves; four daughters, three bulls, and three sets of twins. Two of these are still in the herd, one 17 years old and the other six.

Family Affair — Strictly

Of 16 milk cows in the herd, nine are daughters, granddaughters or great granddaughters of old "Martha." Of a total of 25 females in the herd, 13 are descended directly from Mr. Stevens' original 4-H Club animal.

This is the story of the first great pedigree. The second pedigree comes to light with the news that young Walter Stevens, son of Frank Stevens, is using "Martha's" fourth daughter as his present-day 4-H animal. Mr. Stevens' daughter, Marian, is using a granddaughter of "Martha's" first daughter in her 4-H work and next year, Mr. Stevens' youngest daughter, Charlene, will go into club work with a great great granddaughter (5th generation) of her father's 4-H Club cow as her 4-H Club project!

Longevity isn't the only asset inherent in the Stevens' Holsteins. Old "Alice," after freshening at the age of 16 years 4½ months, has produced 512 pounds fat in 305 days and still is making 40 pounds milk per day. Walter's cow, known as "Young Martha," produced 685.1 pounds fat in 365 days at 5 years of age, winning for him the highest production award in the production class at the State 4-H show in addition to senior and grand championship honors. Marian's heifer, "Sunset Ruth June Rose" has 352.1 pounds fat in 8 months to date and still is making about 25 pounds a month. Old "Martha" herself produced 507.1 pounds fat as a senior 2-year-old and 473 pounds fat in 273 days at 11 years.

I Remember Mama

According to Mr. Stevens' records, every daughter of old "Martha" has out-produced her dam. The 14th son of old "Alice" is being kept on the farm to serve as the Stevens' future herd sire.

On DHIA, the herd has averaged as high as 423.5 pounds fat per year, being milked twice daily.

Mr. Stevens plans a line-breeding program in the future, breeding the daughters, granddaughters, great granddaughters, and great great granddaughters of old "Martha" back to Stevelawn Grandmaster Alice himself sired artificially by Shiawanna Grandmaster, owned by Van Hoven Bros. of Jenison, Michigan and under lease to Zeeland Artificial Breeding Association of Jenison. Nicknamed "Sport" for short, Mr. Stevens' future sire is the 14th son of old "Alice," "Martha's" second daughter, now approaching 18 years of age.

For the Utmost in Turbine Pump UTILITY AND CAPACITY

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PEERLESS

Builds a Pump to Suit Your Service

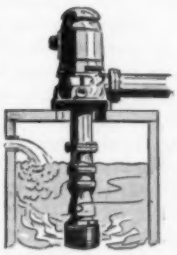
CAPACITIES: 15 to 30,000 G.P.M.

PEERLESS VERTICAL TURBINE PUMPS FOR DEEP WELL SERVICE

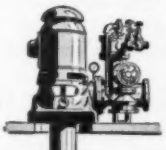
For development of a reliable, permanent water supply, install these deep well pumps with the type of drive most suitable to your application. You have a choice of electric, right angle gear drive, or belted (V- or flat) heads as well as the option of oil or water lubrication. Capacities from 15 to 30,000 g.p.m. are obtained from depths of 1000 feet or more. *Fully described in Peerless Bulletin B-141-1.*

PEERLESS CLOSE-COUPLED TYPE VERTICAL TURBINE PUMPS

For pumping from short settings such as pits, sumps and surface water sources, such as lakes, rivers and ponds, get the full utility and capacity of a deep well pump with a close-coupled Peerless Vertical Turbine Pump. Makes an extremely compact installation. Uses include cooling tower service, boosting, recirculation and dewatering. Capacities: up to 30,000 g.p.m. *Fully described in Bulletin B-159.*



PEERLESS VERTICAL TURBINE APPROVED FIRE PUMPS



For adequate fire protection, the *Underwriters' approved* Peerless Vertical Turbine Fire Pump, with proper fittings, produces from 500 to 2000 g.p.m. against heads from 240 to 285 feet. Built for instant operation. Discharge piping is simplified. Choice of drives and oil or water lubrication. *Fully described in Bulletin B-152.*

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★ ★

DR. ROBERT F. HOLLAND

Problems of the Industry

DR. JAMES C. WHITE

Dr. Robert F. Holland and Dr. James C. White, both of the Department of Dairy Industry at Cornell University, conduct their question and answer column each month in the "Review". Questions should be addressed to either Dr. White or Dr. Holland, Department of Dairy Industry, Stocking Hall, Cornell University, Ithaca, N. Y.

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Cream Plug Difficulties

QUESTION—For the past three or four weeks we have been troubled with cream plug on both our light and heavy cream. We are pasteurizing our milk and cooling it to 80°F. before separation. Since part of the milk from this vat is used for bottling, it is held in the pasteurizer for two to two and one-half hours at 80 to 90°F. but the agitator is kept running during this period to prevent the cream from rising. The milk is pumped to the separator by a centrifugal pump and the flow is controlled by a valve on the pressure side. Can you give us any information that will help us with this problem?

G. E. C., New York.

ANSWER—A cream plug is a mass of fat globules which have coalesced to form a layer of very heavy, rich cream at the top of a bottle. The fat content of this layer is usually very high, often approaching the fat test of butter. The elimination of factors which cause the fat globules and clusters of globules to coalesce (partial churning) will assist greatly in the prevention of cream plug formation.

It is advisable to follow your milk supply from the time it leaves the farm until it is bottled, checking each step to assure proper handling. Incidentally, cream plug occurs more frequently during the late winter months and the feed of the cows and the stage of their lactation period may contribute to this defect.

As far as possible, cans should be filled completely on the farm to reduce splashing to a minimum during transportation to the milk plant. Churning occurs most readily in the temperature range 60° to 80°F., and morning's milk in partially filled cans may churn to some extent in transit. If flakes are observed when the strainer-dipper is used in partly filled cans, the bottom of the strainer should be set in hot water; if the flakes then disappear, partial churning is indicated and cream plug will generally form on cream separated from this milk.

When pumping milk in the above temperature range with a centrifugal pump, flow should not be restricted with a partially closed valve on the pressure side. If this is done some milk tends to stay in the pump and is whipped by the impeller and partial churning may result. This will promote cream plug formation.

If pasteurized milk is to be separated, pasteurization should be timed to be completed just before you are ready to separate. Milk should not be vat cooled and then held for several hours with the agitators running. Some churning may occur if this is done. It is better practice to vat-cool to perhaps 120°F., then pump over your surface cooler, using only the water section and cool to about 70°F. permitting gravity flow to the separator. This will produce cream of good viscosity without excessive agitation of the cooled milk.

Cream should flow from the separator over a surface cooler and into the can without undue splashing; tilt the can so that it will flow down the side.

If you will observe the above precautions in your processing, we believe your cream plug problem will be reduced to a minimum.

Heating Milk in a Continuous Holder-Type Pasteurization Operation

QUESTION—I have been a very interested reader in your question and answer column in the American Milk Review.

We are operating a pasteurizing plant and bottling around 200 cans a day. We have four, 20 can, glass-lined, vat pasteurizers. We clarify the milk into the pasteurizers which operation takes 18 minutes each. By bottling 48 quarts per minute, the tanks are emptied in 17-minute intervals, giving a continuous flow, providing we have steady receipts from the farmers, which is not always the case.

Lately, our pasteurizing man has been putting about five cans in each tank and starting them all heating. Then he would return and add cold milk several times more to each tank until they are all full saying he thought it saved heating time. I can't see how it does. I also feel that it is bad for the milk to add milk that is 40-50 degrees to milk that is 100-130 degrees. I also find that this practice causes excessive cooking-on on the sides of the tank and consequently more labor spent in cleaning up.

Do we save any time using the pasteurizing man's method and what are the resulting effects on the milk? We would appreciate an early answer.

Thank you.

A. M. F., New York.

ANSWER—In the following table, assuming that the milk were at the holding temperature when the vat is filled, we

can see that your first vat would be pasteurized at 48 minutes from the start. It could be emptied, refilled, and pasteurized in 113 minutes but the fourth vat would not be drained of its first load of pasteurized milk until 119 minutes had elapsed. This same schedule, assuming no preheater is used, would allow only six minutes for heating each vat after it is filled, before the holding period has to start.

TIME TABLE OF PASTEURIZING OPERATION

Pasteurized No.	1	2	3	4
Start to fill	0 min.	18 min.	36 min.	54 min.
Full	18 "	36 "	54 "	72 "
Start holding	24 "	42 "	60 "	78 "
End of holding	54 "	72 "	90 "	108 "
Empty at	71 "	89 "	107 "	125 "
Second fill	89 "	107 "	125 "	
Start holding	95 "	113 "		
End of holding	125 "			

If you were using some preheating system whereby the milk is preheated to the proper pasteurization temperature, there would be no particular advantage in the procedure that your plant operator is using; but, if it is taking more than six minutes to get the vats up to temperature after they are filled (and it undoubtedly is), then you have a lag in your bottling operation and consequent delay. For this reason, there might be an advantage in starting to heat all the pasteurizing vats at once, in that the second, third, and fourth vats would require a shorter time to come to 143°F., but this would delay your starting time considerably. Perhaps this is satisfactory in your operation.

There are several disadvantages to your present method. One of these is that you are not using all the heating surface available in your vat if it is only partly filled.

This also means that when more milk is added, the temperature of the milk already in the vat is lowered and the milk level is raised. This raising of the milk level will cause successive rings of burned on material to form around the vat as each increment of milk is added, and these rings represent milk which has been locally overheated and is liable to cause a cooked flavor. They also represent a foundation for a deposit of milkstone. This practice also subjects the milk to heating for a longer period of time at temperatures below 143°, which will contribute somewhat to the destruction of vitamin C and precipitation of some of the mineral salts in milk. While decrease in the nutritive value of the milk will be slight, I think it is important enough to make this practice not sound from a commercial standpoint.

We hope that this information will be of some help to you and that we may be of further service through the *American Milk Review*.

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THE LABOR PICTURE

(Continued From Page 36)

way. The issue now is whether or not the company will take back the men it discharged.

Both company and union have been hurt. The union's treasury was depleted in short order but help from the International has kept them going. The company has lost a substantial amount of business. Most recent loss was the decision of the Hartford Roman Catholic Diocese to cease taking milk from Bryant and Chapman while the strike is on. Picketing has been extended to National Dairy Corporation plants in other cities.

As might be expected the strike has stirred up a great deal of bitterness. The union alleges that the company is trying to "break" the union. They cite the "observers" and a statement by a National Dairy Corporation official to the new replacements, "The significance of this strike extends far beyond Connecticut" as proof. Bryant and Chapman officials declare such an attitude to be ridiculous and feel that the union was out to force the company into something it could not do.

KLENZADE

Brings you the most sensational advance in dairy plant sanitation.

Startling NEW PLAN BY KLENZADE

The only line of dairy cleaners to provide a perfect balance of organic acid and alkaline cleaners.

Complete physical cleanliness of milking equipment and utensils on the dairy farm and in the dairy plant can be better maintained by the alternate use of acid and alkali cleaners under the procedures outlined below. Nation-wide acceptance of the alternate method prove it the greatest advance in dairy sanitation yet discovered.

DAIRY PLANTS

For hand washing operation, use Super Six three days, then use Nu-Kleen one day.

For Can Washing, use Acid Klenz three days, then use CBS Cleaner one day.

For High Temperature Equipment, use Flash Klenz, then Flash Kleen every day.

DAIRY FARMS

For all cleaning operations, use Kleer-Mor three days, then use Nu-Kleen one day.

KLENZADE

Chemical cleaning specialists serving the dairy industry with conveniently located branch offices, warehouses and distributors in principal cities throughout the nation.

KLENZADE PRODUCTS, inc.

BELOIT, WISCONSIN

AMA Packaging Exposition

Nineteen Countries Represented at Packaging Classic in Cleveland — Five Thousand Companies Send Delegates

REPRESENTATIVES OF 19 foreign countries including several hundred from Canada and groups from both Europe and South America will be among the visitors to the 17th annual AMA Packaging Exposition in Cleveland, April 26-30, the American Management Association announced today. Nearly 400 different American industries and businesses will be represented by approximately 5,000 companies who will send delegates to Cleveland.

A record 100,000 square feet of exhibit space has been leased, a record number of requests for hotel space in that city during Packaging Week is being accommodated and more than 15,000 executives of package producing and using companies have indicated plans to attend the Show and the concurrent Conference.

Exhibitors include companies offering packaging machinery, materials, methods, equipment, design and services. The 5,000 companies whose delegates will shop for means of improving their packaging, packing and shipping and participate in discussion sessions, are in virtually every field of the nation's commerce.

The Cleveland Convention and Visitors' Bureau has established a special Housing Bureau for the Exposition to handle requests for hotel room reservations. Hotels have allocated more space than was originally assigned and are confident they can provide a more than an adequate number of rooms. They request, however, that applications for reservations be made through the Housing Bureau.

Railroads and air lines, reporting a heavy number of reservations for Cleveland during the time of the Exposition, are urging that applications be made as early as possible, specifying round trip tickets to avoid difficulty in obtaining return space.

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Boston Formula A Fact

New Method of Pricing Class I Milk Became Effective April 1 In Three Bay State Markets

THE U. S. DEPARTMENT of Agriculture announced today that a new formula for pricing Class I (fluid) milk will become effective April 1, 1948, for the Boston, Lowell-Lawrence, and Fall River, Mass., milk markets. The new formula is based on indexes measuring supply and demand conditions in the New England area. Under the previous formula, the price of fluid milk in these markets was related to prices of butter and non-fat dry milk solids.

The new pricing formula was developed cooperatively with producers, handlers, economists, and civic leaders of the New England area. Groups concerned have strongly recommended the adoption of the new formula as a means of assuring adequate supplies of pure and wholesome milk for these areas. Proposals were submitted at public hearings held in New England October 20-24. On February 27, 1948 the Department of Agriculture announced that the industry would have until March 9 to file exceptions to the proposal. On March 18, the Department announced steps to obtain final industry approval. These steps have now been completed.

The formula relates the price of Class I milk in the three New England markets to (1) the national wholesale commodity price index, reported by the Bureau of Labor Statistics, (2) the index of dairy feed prices and farm wage rates in the Boston milkshed, reported by the U. S. Department of Agriculture, and (3) consumer demand as measured by the index of department store sales in New England, reported by the Federal Reserve System for the Boston district. The average of these three indexes will determine the basic price for Class I milk, with seasonal adjustments for the flush and short seasons of production, and special price adjustments on and after January 1, 1949 for periods in which the milk supply is short or excessive in relation to Class I sales. Changes in producer prices for Class I milk will be in multiples of 22 cents per hundredweight as provided by the former orders. These prices will be announced about five days in advance of the month for which they are effective.

The seasonal adjustments of the Class I price will result in a price 44 cents per hundredweight higher in the fourth quarter of each year than the annual base price (resulting from an average of the three indexes), and 44 cents lower in the second quarter of each year.

●

British Bottle Shortage

More Trouble Along the White Cliffs of Dover as Glass Container Industry Faces Difficult Situation

ALTHOUGH DAIRYMEN are getting priority supplies of glass bottles the supply is still short of requirements and costs are high. Glass manufacturers serving the field claim too that too much of the waste material they need for remanufacture is being diverted into less essential glass using industries and is lost to the dairymen. The whole glass container position in Britain is remarkably difficult.

Manufacturers are working essentially on purposes such as food containers, milk bottles, pharmaceutical and other types. One reason is of course that large quantities are still being exported in the form of packed merchandise; these bottles never return. Another reason is the loss by breakage which is a serious one, and which is the more so now that coal, soda and other ingredients are both scarce and expensive.

The rising spiral of costs in all industries has been a sore point with manufacturers who see their products rising ever more expensive without being able to themselves check the cost increases. Wages are higher, raw materials all cost more and there is less production, generally speaking, than ever before thanks to the shorter week. The remedy is so obvious—longer hours for less money or alternatively, more production per working hour—that it is surprising that to date results are, on the whole, poor. There are signs that improvement is due and that the output per man hour will rise. But it needs to rise a very great deal before present problems, and especially this cost spiral, are corrected.

One indication of the scarcity and high cost of materials is the keenness with which glass manufacturers and container makers are chasing even broken supplies. One of the largest manufacturers in the field, the United Glass Bottle Manufacturers Ltd., has issued an appeal for return of broken glass and crates—both vital for continuous turn round of supplies. In their appeal this big group says, in effect, that essential food users, such as dairymen, can only get fresh deliveries if they direct their waste and crates to those makers producing for essential food work (and therefore away from non-essential purposes, to which glass is being diverted.)

Visit Research Laboratory

Officials of the British Milk Marketing Board are to visit a Surrey Research laboratory to watch a demonstration of

milk sterilization by sound-energy. This revolutionary method of purifying milk has been evolved by British scientists, who are using ultrasonics—sound waves which vibrate too fast for the human ear to hear them—to kill bacteria in milk. Advantages of this system, which, it is claimed, may soon supersede heat treatment, is that milk could be sterilized in transit by portable sound-waves generators, thus giving speedy delivery.

•

Distribute Ice Cream Report

National Dairy Council Gives Big Push to A. C. Dahlberg's Study of Frozen Food

THE FIRST COMPLETE analysis of the nutritive values of ice cream is now being broadcast over the nation by the National Dairy Council.

The analysis was completed in exhaustive tests by Dr. A. C. Dahlberg of the department of dairy industry in conjunction with Dr. J. K. Loosli of the department of animal husbandry at Cornell University, Ithaca, N. Y.

Their technical report, which scientifically announces the high nutritive values of this dairy product, confirms previous unpublished assays that were sponsored by the National Dairy Council, and is currently published in the Journal of the American Dietetic Association.

Reprints of the Dahlberg report are being distributed by the National Dairy Council—to the professional and educational leaders of the country, to dietitians, to professors of nutrition and dairying, to home economics teachers, to state nutrition committees, to industry leaders, and to affiliated Dairy Council units.

In addition, an extensive abstract of the Dahlberg findings is being reproduced by the International Association of Ice Cream Manufacturers, in its news letter to members; popular publicity releases are being issued, and the findings are being incorporated into educational materials.

"The Dahlberg findings," declares the National Dairy Council, "will have great effect on recommendations for the use of ice cream in balanced meals."

The Dahlberg research concerned itself with commercial vanilla ice cream, believed to be "the most representative ice cream." This procedure was carried out "in cooperation with an ice cream plant in New York State," and Dr. Dahlberg personally supervised the preparation of the mix.

"The excellent nutritive value of ice cream," the Dahlberg report states, "has long been recognized from information from feeding experiments with ice cream and from information on the food value of its ingredients. There was need, however, for more analyses of ice cream for its major food nutrients."

In summary, the report states that an average serving, about 1/6 of a quart, contains the following nutrients:

Calories, 206; protein, 3.85 gm.; fat, 12.06 gm.; carbohydrates, 21.31 gm.; total minerals, 0.81 gm.; calcium, 0.122 gm.; phosphorus, 0.105 gm.; iron, 0.120 mg.; thiamine, 0.038 mg.; riboflavin, 0.236 mg.; niacin, 0.098 mg.; vitamin A, 548 International Units; and ascorbic acid, 0 mg.

The study was "undertaken at the suggestion of the National Dairy Council," the report states, and adds:

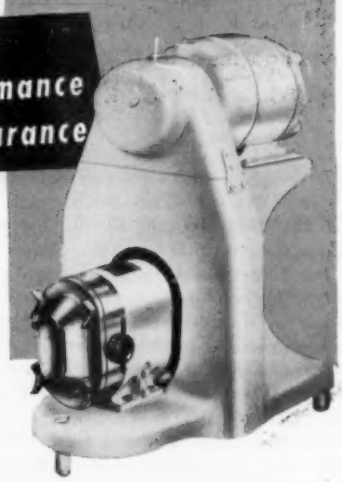
"The results obtained in this study are in excellent agreement with those of the National Dairy Council on ice cream of similar composition even though manufactured in a different locality during different years. Furthermore, the data agree well with food value claims based on ingredients."

Waukesha Designers Streamlined

This New HIGH BOY

100% SANITARY PUMP

For Better Performance Better Appearance



If you want really modern pumping equipment, combining service, utility, and appearance that will be assets to your plant, by all means see the new WAUKESHA HIGH BOY. Take note of the fully rounded corners, the smooth-finished all-aluminum base and cover that contribute to make the entire unit 100% sanitary. Observe, especially, that all pulleys and belts are fully enclosed — no moving parts exposed.

Maximum convenience was a prime consideration in designing this new WAUKESHA HIGH BOY Pump. With no belt guard to remove or motor table to raise or lower, manual changing of speeds is a quick, simple operation, requiring removal of only four screws.

BEFORE SELECTING NEW PUMP EQUIPMENT
Check These WAUKESHA HIGH BOY Features:

- Assured Accurate Volume — Adjustable sheave pulley permits quick, easy increase of speed to compensate for any loss of capacity due to ultimate wear of the pump.
- 40% Speed Increase — Made possible by the use of adjustable sheave driving pulley.
- Sanitary Ball-Feet — Allow proper cleaning and drainage between base and floor.
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THE NUTRIENTS IN MILK

A National Dairy Council Digest

In any field, such as nutrition, where ideas and concepts are constantly being enlarged and changed, it is well to "take stock" at intervals. For that reason, this and the next succeeding issue of "Dairy Council Digests" will be devoted to a review of the nutrients in milk and the recent advances in our knowledge of their significance in human nutrition.

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IT IS BECOMING increasingly apparent that the biological importance of a protein depends on its amino acid content. This reemphasizes the high food value of milk proteins since they contain a wide assortment of all the amino acids. According to a recent study, individual amino acids are not stored in the body, but are irreversably metabolized (1). Therefore, for a diet to be adequate for protein synthesis, it must necessarily have all the essential amino acids present simultaneously as they are in milk and other "complete protein" foods. The importance of including in the diet foods, such as milk, which contain a wide assortment of all the amino acids has been indicated by recently reported research. (1). Rats were given feedings of incomplete amino acid mixtures and were supplied the missing amino acids several hours later. The growth rate of these rats was significantly lower than that of rats receiving all the amino acids, at once, in the regular feeding.

Casein and lactalbumin, the principal proteins of milk, are now recognized to be of equal biological value for human beings (2). In the past, lactalbumin was thought to be superior to casein, which is somewhat low in cystine. This belief was based on experimental work with rats and dogs, but apparently these animals, because they are fur-bearing, have a higher requirement for the amino acid, cystine, than do human beings.

The Role of Fat

Evidence of new and important ways in which fat may function in the body has been presented recently. Forbes and his co-workers (4) have demonstrated that increasing the percentage of fat increases "the economy of food utilization" in both young and mature rats. Scheer and his associates (5) have also presented evidence that animals receiving liberal amounts of fat perform more satisfactorily, from the standpoint of growth, reproduction, and longevity, than animals fed little or no fat. They could not explain these differences on the basis of other dietary factors, and it was their conclusion that fat takes an active and necessary part in various fundamental vital processes of the body. Although milk fat has for some time been recognized as a source of fuel and "essential" fatty acids, and as a carrier of the fat-soluble vitamins, A, D, E, and K, recent research has served to further expand the role of fat itself in nutrition.

Within the past few years a number of other studies have been carried out on milk fat. These have yielded information both on the whole fat and on its fractions. Reviews of some of these studies may be found in *Dairy Council Digests* for November, 1945 (Vol. 17, No. 2) and for May, 1947 (Vol. 18, No. 5).

Lactose, the principal sugar in milk, was recently observed to exert a beneficial effect on the absorption and utilization of calcium by pre-school children who were receiving minimal levels of the mineral (6). There is also evidence that a supplementary relationship may exist between lactose and butterfat in promoting growth and in stimulating intestinal synthesis of certain vitamins (7).

Utilization of Calcium

It is now recognized that only a relatively small proportion (generally around 20 percent) of the calcium taken into the human body is utilized. The calcium of milk is considered to be well utilized, while that of certain vegetables, such as spinach, in which the mineral occurs in the form of insoluble calcium oxalate, is not used. This has raised the question as to whether the calcium in chocolate-flavored milk drinks is available to the body, since cocoa is a food which contains a moderate amount of oxalic acid. Experiments have demonstrated that calcium rentention by animals is depressed if their rations contain amounts of cocoa far in excess of that which would normally be used. This effect probably is not significant in human dietaries, however, as Mitchell and Smith (8) have pointed out.

Recent data indicate that the present recommended allowance of 0.8 gm. calcium daily for adults may not be adequate in all cases. Apparently this allowance is not sufficient for the period of "residual" growth in the post-adolescent period immediately preceding adulthood. This is of particular importance in young women, since, not only may there be an increase in height and in the calcification of certain bony centers in the body during this period, but there is the anticipation of the added strain of pregnancy and lactation. McKay and her associates (9) have recommended a daily intake of 1.0 gm. calcium for young women 17-24 years of age.

It was found by Ohlson and her co-workers (10) that women past middle age require an intake of 1.1 gm. calcium per day for equilibrium. Whether this is due to a calcium deficit engendered by child-bearing, to a long-continued dietary deficiency, or to poorer utilization of calcium by these older subjects is not known as yet.

The need for calcium during the period of rapid growth in childhood and adolescence is much greater than in later life. This fact has only recently been recognized. In a study on adolescent boys (11), very large retentions of calcium were found. The need for a quart of milk a day for children during the early school years, with an increase to 1½ quarts during the time of rapid prepubertal growth was emphasized by the scientists who carried on this work.

Phosphorus Abundant in Milk

Phosphorus is another important mineral present in abundant quantities in milk. Furthermore, milk which is fortified with 400 U.S.P. units of vitamin D per quart, is our best food source of all three nutrients (calcium, phosphorus, and vitamin D) so important for building and maintaining bony structures of the body.

Milk is an excellent source of vitamin A and of riboflavin, and an important source of thiamine. Detailed discussions of these three vitamins as they occur in milk, and of the effect

of various methods of processing and handling on their content, were included in the July, September, and November, 1947 issues of *Dairy Council Digests* (Vol. 18, No. 6; Vol. 19, Nos. 1 and 2).

A survey of the data published in recent years shows the ascorbic acid content of freshly drawn whole milk to be around 20 mg. per quart. The ascorbic acid content of pasteurized market milk is somewat lower, probably 10 mg. to 15 mg. per quart immediately after bottling. Further destruction of this vitamin may occur during refrigerator storage of milk (12). Ascorbic acid is readily destroyed by atmospheric oxygen, especially in the presence of copper. It is understandable therefore, that the ascorbic acid content of milk is lessened by such processes as pasteurization, homogenization, and storage.

Milk contains all the vitamins known to be essential to man, most of them in significant amounts. It also carries many nutrients whose significance in human nutrition is not yet fully understood. The succeeding issue of *Dairy Council Digests* will discuss these newly discovered factors as well as the remaining essential vitamins.

Summary

1. Milk proteins are of high biological value since they are sources of all the known essential amino acids.

2. The fat of milk may have a specific role in nutrition in addition to its function as a fuel food and as a carrier of fat-soluble vitamins.

3. Lactose appears to have a beneficial effect on calcium utilization in children, and on intestinal synthesis of certain vitamins in experimental animals.

4. High calcium requirement during certainperiods of growth and adult life have furnished new evidence of the need for ample allowances of milk during these years.

5. Milk contains all the vitamins known to be essential to man, as well as many nutrients whose significance in human nutrition is not yet fully understood.

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Editor's Note—This article was first published by the National Dairy Council and is a part of the dairy research program carried on by that organization. Dairy Digests are published by the Council six times a year.

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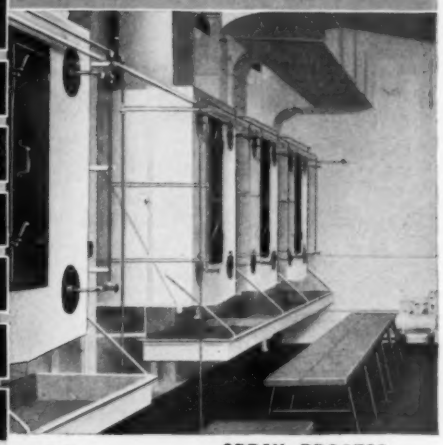

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Bay State Short Course

Short Courses in dairy plant operation conducted at the University of Massachusetts have been extremely popular in the Bay State. Shown here is a group of dairymen who recently completed one of the intensive courses.

●

Klenzade Holds Seminar

Leaders in Dairy and Food Sanitation Attend Twelfth Annual Meeting of Chemical Firm Held in Wisconsin

KLENZADE PRODUCTS INC., Peloit, Wisconsin have just completed the Twelfth Annual Meeting and Educational Seminar, held at Lake Lawn Hotel, Delevan Lake, Wisconsin.

The Seminar was highly successful and was one of the largest affairs of its kind ever conducted in the United States.

More than 400 leaders in dairy and food sanitation attended the meeting as guests and speakers. These representatives came from practically every state in the union and many from the Dominion of Canada. College educators, state and county health sanitarians, and representatives from many allied industries were among the guests.

In addition to the hundreds of guests and speakers, there were approximately 150 Klenzade salesmen, representatives and technicians in attendance.

For the event, Klenzade Company leased the entire hotel and spacious grounds at the famous Delevan Lake resort and in addition had to rent many hotel rooms in down town Delevan to accommodate the more than 600 guests.

The program lasted an entire week, the first three days beginning March 15 being devoted to an intensive training course in schooling in Klenzade products and methods. The last three days, March 18 to 20, were devoted to the Seminar itself.

Among the outstanding speakers are the following: Dr. C. K. Johns, Senior Bacteriologist, Canadian Experimental Farms, Ottawa, Canada; Dr. E. H. Parfitt, Evaporated Milk Institute; Dr. P. R. Elliker, Professor of Dairy Microbiology, Oregon State College; Dr. M. P. Baker, Professor of Dairy Bacteriology, Iowa State College; Mr. Evan Wright, Senior Sanitarian, Kansas Health Department; Dr. H. A. Trebler, Director, National Dairies Research Laboratories; Mr. W. J. Dixon, Commissioner, Kansas City Health Department; Mr. K. G. Weckel, Professor of Dairy Industry, University of Wisconsin; Mr. Hershel Engler, Specialist, U. S. Public Health Service; Dr. W. J. Corbett, Director of Laboratories, Dean Milk Company; Mr. H. S. Adams, Chief–Div. of Food Sanitation, Minnesota Health Department; Mr. Kenneth Shaw, Hobart Manufacturing Company; Mr. Lewis Dodson, Director, Denver Health Department; Mr. D. B. Morton, Senior Sanitarian, Illinois Health Department; Dr. M. R. Fisher, Chief of Milk Control, St. Louis Health Department; Dr. W. H. E. Reid, Professor of Dairy Industry, University of Missouri.

In addition to these, there were many other speakers from the technical staff of the Klenzade Company.

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THE CORRESPONDENTS REPORT

(Continued from Page 47)

to the board were Barney Bradford and D. O. James of Iowa Park and Ross Sleigh of Electra.

Lawrence spoke briefly to the group, emphasizing the importance of developing first grade dairy cattle.

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MID-WEST

By ROBERT KANODE

COLUMBUS, OHIO–ALL TRUCK operators on milk pickup routes in Ohio have been notified by the Ohio Department of Agriculture they have just three months to get closed bodies for their milk trucks under a new regulation of the agriculture department.

The use of stake body trucks and similar vehicles to haul milk picked up from dairy farms is prohibited under the regulation and the move is viewed as a good one by the Ohio Dairy Products Association since it will give better protection to milk and cream containers, sparing them from exposure to dirt, dust, rain and extremes in temperature changes.

Ohio pasture conditions now are regarded by dairymen as much better than at the same time last year. Pastureage is available earlier, weather conditions thus far have been milder although at the present time milk production overall is down about 6 to 10 percent lower than the 1947 figure at the corresponding time.

A series of 20 meetings held in seven central Ohio counties under the auspices of the Ohio Dairy Products Association and Ohio State University's department of agricultural economics to urge increased milk production from producers together with better quality, more efficient operations and a general toning up of the producer situation had a total attendance of more than 3500 with an excellent response it was reported.

The milk price situation has remained good because the number of federal milk marketing orders issued in Ohio has been greater than in almost any other state. The price situation for the farmer is regarded as very good at this time in almost the entire state.

At the same time feed prices are high and the supply is poor to bare. The corn feed outlook is about the same as last year and there may be a decrease in the soy bean supply.

Ice cream sales took a sharp drop in February, apparently due somewhat to a cold and late winter but have started to show some gains at present.

The temporary closing of one Columbus dairy in March due to alleged failure of the operators to comply with orders of the Columbus Health Department was regarded by some

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dairymen as having political implications instead of being due to alleged insanitary conditions.

The dairy was closed only a few days and since it has complied with health department regulations it is now in full operation again. The order was the first in years issued by the health department barring a dairy from making home deliveries because of failure to comply with sanitation requirements.

Early in March a "Town Meeting of the Air" radio debate between two representatives of the dairy industry and two representing the margarine industry over the sale of margarine in colored form in Ohio attracted wide attention and resulted in hundreds of telephone calls to the debaters while they were airing their program from the city hall.

NEW ENGLAND

By JEFF STERNS

THE MASSACHUSETTS dairyman's side of the milk price question was clearly stated in a meeting of the State Milk Control Board in New Bedford on March 26. Evidence was given that showed dairymen had been forced to give up their business because of milk price cuts. H. P. Hood and Sons, one of the largest distributors of milk and milk products in this area, was strictly against any reduction in price of bottled milk because of the harm done to the farmer.

Cecil Ford, manager of the New Bedford Milk Producers' Association declared that milk dairymen found it so difficult to stay in business because of repeated cuts in price that it became necessary several times for distributors to seek milk out of the state.

"Once people know how old this milk is before they use it," he said, "no one would drink it."

Mr. Ford threatened to ask the Legislature to pass a labeling bill whereby the date of milking would be made known to the public.

Producer's Dropping Out

It was brought out that the policy of dropping the retail price of milk in the Spring had brought about the downfall of several dairymen because the price reduction never took into consideration the high cost the farmer was laboring under at the time prices were lowered.

Mr. Ford stated that the New Bedford area has lost more than a third of its producers it had before the war. "Last year 14 went out of business—and people don't go out of business because they are making money," the manager declared heatedly.

"It is costing farmers one dollar a week more per cow than it did a year ago, and we are getting two cents less per hundredweight," he said.

Mr. Ford explained that farmers are doing all they can to keep prices down, but the high cost of feed for their cattle and the help situation combined with other things made it a losing fight.

"With conditions as they are," he went on, "no one is going into the dairy business except a few G. I.'s who got stuck—and most of them are crawling out."

Edward M. Dwyer, a board member, stated that he believed all farmers would agree with a price that was fixed on the basis of their costs.

All told, it is supposed that if the price control board got together with the farmer things could probably be ironed out to suit the farmer and the consumer at the same time.

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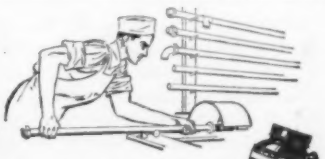

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ADSA'S FORTY-THIRD

Dairy Scientists to Hold Their Annual Meeting at the University of Georgia in June

AMERICAN DAIRY SCIENCE ASSOCIATION members will go south to the University of Georgia for their Forty-third Annual Meeting June 14-16. This will be the first time the ADSA has held a major meeting in the Southeast.

The first day of the meeting will be devoted to a general assembly at which all segments of the dairy industry—production, manufacturing and extension—will be represented. H. B. Henderson, head, University of Georgia Dairy Department, will preside over the first day's activities.

Included on the opening agenda will be the introduction of guests and officers of the ADSA, followed by an address of welcome to the Athens Campus by President Harmon W. Caldwell, of the University. Dr. Paul W. Tracy, president, American Dairy Science Association, will deliver a presidential address.

Dean Chapman to Speak

The keynote address of the Annual Meeting will be made the first day by Dr. Paul W. Chapman, dean, University of Georgia College of Agriculture and one of the foremost promoters of the dairy industry in the South. He will discuss "the Development of the Dairy Industry in the South", after being introduced by Alexander Nunn, managing editor, *The Progressive Farmer.*

The College of Agriculture head was recently named for the second time as "Man of the Year For Distinguished Service To Southern Agriculture", by *The Progressive Farmer.* He was designated for the honor first in 1939.

Prior to assuming his present duties in 1934, Chapman was State Supervisor of Vocational Education and State Director of the Georgia Board of Vocational Education. He has served as president of the American Vocational Association and the National Association of State Directors of Vocational Education, has served on many national committees on education, and has been active in professional and civic organizations.

Dean Chapman is the author of several textbooks on agriculture and related subjects and a novel, "The Greenhand," which won national recognition as being illustrative of the activities of the Future Farmers of America organization. He has been acclaimed as one of the foremost contributors of "down-to-earth" magazine and newspaper articles on agriculture, industry, and how to "balance farms with factories."

During the past several years Dean Chapman has devoted much of his time toward promoting a balance between industry and agriculture, particularly in Georgia and other southern states.

P. H. TRACY

In announcing Chapman as "man of the year", *The Progressive Farmer* cited his contributions: ". . . He has done more than any other individual to awaken every section of the South to its opportunities for growth through more rural industries, and in leading our people to grasp these opportunities." The magazine said chapman's contribution to the progress of the rural South has grown year by year.

Dean Chapman has consistently stressed the need for better breeding programs and year-around pastures for a more uniform supply of milk; the operation of more processing plants, and the production of increased quantities of manufacturing grade milk. He has been influential in bringing about the establishing of thousands of small dairy herds on family-size farms throughout the state in recent years. In recognition of his many contributions to the industry, the Dairy Science Club at the University of Georgia last year installed Dean Chapman as a lifetime member; and that organization has dedicated its 1947-48 yearbook, "The Georgia Dairyman" to him.

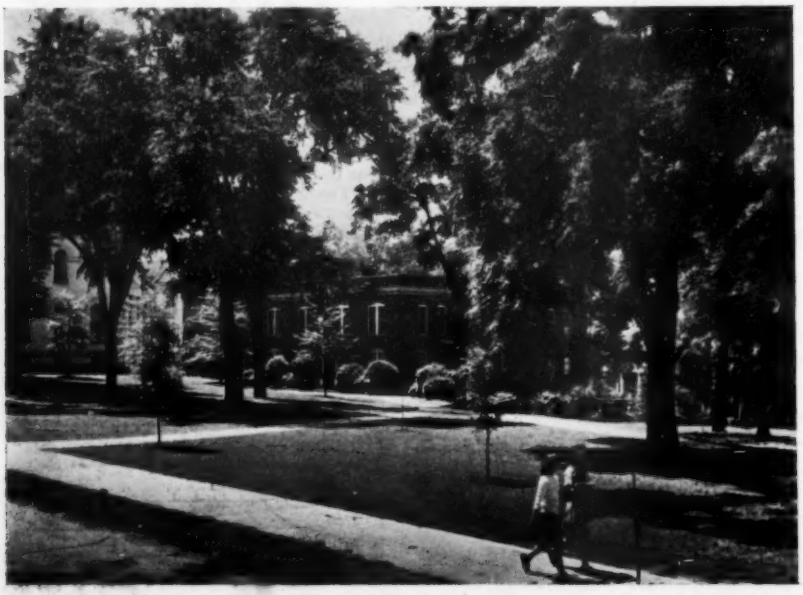
Group Conferences Scheduled

Following the first day's sessions, the ADSA meeting will be divided into group conferences on dairy production, manufacturing and extension.

A special scenic tour of Atlanta is being arranged for Sunday, June 13, for those coming to Athens through the Georgia Capitol.

The tour, which will begin from a designated central point, will be sponsored by the dairy industry of Atlanta.

Housing for those attending the meeting will be provided in University dormi-



University of Georgia's Gracious Tree Lined Campus Will Serve as Meeting Place for American Dairy Science Association's Forty-third Annual Convention Which Will be Held June 14-16.

XUM

tories or in Athens Hotels, and meals will be available at the University dining halls, beginning Monday morning, June 14.

Children from three to six years will be admitted to the University Nursery School. Personnel from the State 4-H Club office will be available to conduct organized recreational activities for older boys and girls.

Various kinds of entertainment are being planned for women attending the meeting, including a tour of some of the famous old homes of Athens; a trip through the University Art Department; a tea in the University's famous Formal Gardens; a reception and dance; and a "Georgia barbecue — with all the trimmings."

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WILL EXTEND PRICE STUDY

The New York Milkshed Price Committee, named to study alternative methods of pricing fluid milk (Class I-A), will not submit a report on April 1, as planned, it was announced today.

The announcement was made by Dr. F. F. Hill, Cornell University, the chairman, in a letter to Dr. C. J. Blanford, Market Administrator of the New York metropolitan milk marketing area, who appointed the committee.

"The problem of pricing Class I-A milk is extremely complicated," Dr. Hill said in his announcement. "The Committee has found it desirable to spend more time investigating various aspects of the problem than was originally contemplated. It has considered a number of possible methods of pricing."

Dr. Hill pointed out that since the committee was appointed by Dr. Blanford on November 17, 1947, it has been working continuously, within the limits of time the members had available, and added:

"The Committee feels that the most valuable contribution can be made if it spends further time in revising its preliminary analysis and conclusions, and completes its report at a later date."

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FIFTIETH ANNIVERSARY

Officials of the Beatrice Foods Company were feted at Beatrice, Neb., where the company started as a small butter and eggs business 50 years ago.

C. H. Haskell of Chicago, Beatrice Foods president, spoke at a Chamber of Commerce testimonial dinner. The anniversary celebration drew Nebraska Gov. Val Peterson and leading business men in the state.

PUBLIC LOOKS AT MILK

(Continued From Page 22)

company and its unceasing efforts to safeguard for them this precious juice of life; bringing it to them in a constantly flowing stream that knows no lack or shortage. Let us show them how meager is the margin of profit on which we must manage.

And lastly, for those of the public who are without sentiment—on a cold dollar-and-cents basis—explain that milk, with all its wealth of nourishment; with the dependable health and sanitary protection and service it offers—is the greatest bargain in the market basket—30% below the average price of the whole food list. And its low price is made possible chiefly through your efficiency and watchful economies.

As the war tacticians say, "the best defense is an offense." The best way to assure public good will is through public understanding. Tell them the facts —today, tomorrow and every day.

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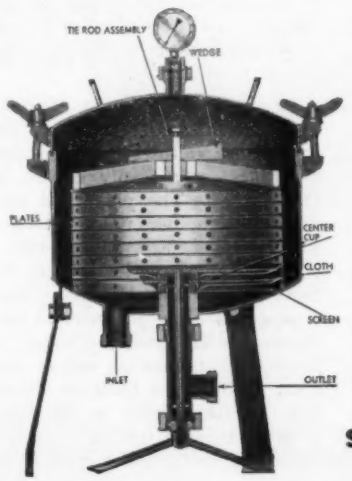

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Mathieson Alkali Works Becomes Mathieson Chemical Corporation

Virginia Concern Adopts New Name After Half Century of Progress—Firm Is Well Known in Dairy Industry

THE MATHIESON ALKALI WORKS, after having been known by that name for 56 years, announced recently that its stockholders had approved a change in name to Mathieson Chemical Corporation.

The company was established in 1892, when a group of American businessmen decided to produce alkali and bleaching powder in this country. At that time, most of the former product and all of the latter were imported.

The services of Thomas T. Mathieson, member of an English alkali manufacturing family, were obtained to supervise the construction of a plant and its initial production. Mr. Mathieson brought with him 50 skilled workmen and technical men to Saltville, Va., the site selected for the first plant. The American owners also acquired use of the Mathieson name and Eagle-Thistle brand, already well-known in the United States.

From that beginning the company has grown to its present size with additional plants at Niagara Falls, N. Y., and Lake Charles, La., with gross assets, before property depreciation, of over $60,000,000., and with a production capacity of over 600,000 tons of basic chemicals annually. Distribution facilities include warehouses located in sixteen cities and a fleet of nearly 1,000 special railroad cars, part owned and part leased. The number of employees has grown to more than 3,000.

Factors in Location

Saltville was selected as the initial site for the new venture for a number of reasons. Salt is a basic material in the alkali industry and Saltville derived its name from the salt beds which underlie hundreds of acres of the Virginia countryside. Limestone, another essential, is abundant locally and the coal fields of Virginia and West Virginia are nearby. Proximity to the industrial north was also a factor and the American founders of Mathieson anticipated the growth of alkali-consuming industries in the south. Today, the rayon industry is concentrated in that area and is the largest single consumer of caustic soda, with the exception of the chemical industry itself.

The operations at Saltville led eventually to the production of bicarbonate of soda, dry ice and liquid carbon dioxide, in addition to the basic chemicals, caustic soda and soda ash.

Almost immediately after starting operations at Saltville, the company obtained the rights in this country to the use of the Castner electrolytic cell for producing caustic soda and chlorine. After experimental installations were tested at Saltville, a plant was built at Niagara Falls, N. Y., where the abundant, low-cost power needed for the process was available. This plant was operated as the Castner Electrolytic Alkali Company until 1917 when it was merged with the parent company.

Introduced Synthetic Ammonia

In 1923, Mathieson introduced synthetic ammonia, the first commercially produced in the United States. The process, which grew out of the company's wartime experiments in nitrogen fixation, utilized nitrogen from the air and the hydrogen by-product of the mercury cells at the Niagara Falls plant. It proved so efficient that practically all the ammonia now manufactured in the country is produced synthetically.

WEST VIRGINIA MEETING

The thirty-fourth annual convention of the West Virginia Dairy Products Association will be held at the Greenbrier Hotel at White Sulphur Springs on Monday and Tuesday, August 16 and 17.

In 1930, the company started to survey the growing industry of the deep south and southwest, and a site for a new plant was finally chosen at Lake Charles, La. The plant was completed in 1934, another unit making caustic soda and soda ash. There were several reasons for the selection of this site. Salt from the West Hackberry Salt Dome is piped as brine 12 miles to the plant. Oyster shells from the dead beds of nearby lakes offer an ample source of lime. Natural gas from the 40-mile distant Tepatate fields is the fuel. The growing industry of the area is readily accessible by rail and water.

During World War II, Mathieson built and operated an ammonia plant for the government at Lake Charles, and has since leased it. Here synthetic ammonia is produced from natural gas.

The company's research laboratories at Niagara Falls are largely responsible for the product diversification behind the change of name. True calcium hypochlorite, a dry powder used principally for small-scale chlorine disinfecting and bleaching, was introduced in 1928. Sodium chlorite, commercially introduced just before the last war, is used as a bleaching agent in the manufacture of textiles, paper, flour, oils and fats, and other materials, and to remove objectionable tastes and odors from public water supplies. Sodium methylate in powder form was made commercially available during the war and helped make possible the large wartime production of sulfa drugs. Latest major development is a "stationary" mercury cell (as compared to the Castner "rocking" cell) for production of concentrated caustic soda and chlorine.

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OWENS-ILLINOIS EXHIBITS

The handisquare milk bottle, the new square-shaped glass container for milk, will be one of the features of the Owens-Illinois Glass Company's display at the Packaging Exposition in Cleveland's auditorium, April 26-30.

Lighter in weight and more compact, the square bottle's advantages are numerous. It is easier to grip and will not roll if tipped over.

Its space-saving economy is one of the most important features of the new bottle. In some home refrigerators it is possible to double the number of quart bottles that can be stored.

Nation-wide surveys have shown that housewives recognize the conveniences of the handi-square bottle and prefer it over the old type round bottle.

The Owens-Illinois exhibit, occupying Booths No. 208-209, is 31 feet long and 10 feet deep and will contain five lighted panels displaying Duraglas containers.

Containers displayed in the other panels will include drug, pharmaceutical, toiletry and cosmetic, household products, baby food, fruit and vegetable, and beverage bottles. A revolving table will also feature colorful plastic items.

Owens-Illinois representatives expected to be in attendance at the exposition are E. F. Bertrand, A. R. Kohl, W. M. Robertson of the Drug Industries Divisions in Toledo; E. A. Hildreth, C. M. Dooley, R. B. Bradley and Ken Hamel, Market Development Department; S. F. Davis, Food Industries Divisions; R. E. Delaplane, Beverage Industries Divisions and various branch representatives.

NATIONAL DAIRY ELECTS

Rutherford, Aronson, Maurhoff Named To Top Posts in Organization

New York, April 16—L. A. Van Bomel, president of National Dairy Products Corporation, announced today that George H. Rutherford, treasurer of the company since 1941, has been elected a vice president.

A. S. Aronson, assistant treasurer for the past seven years, has been elected treasurer to succeed Mr. Rutherford, Mr. Van Bomel also stated, and Howard L. Maurhoff, who has been associated with the treasurer's office for a number of years, has been appointed assistant treasurer.

Mr. Rutherford joined the company in 1932 as head of the statistical department, becoming progressively assistant treasurer and treasurer. Prior to 1932 he was assistant to the executive vice president of General Foods Corporation, an analyst for the Investment Research Corporation, Detroit; treasurer of the Miami Paper Company, Dayton, Ohio; and a salesman with Publishers Syndicate, Chicago. He is a graduate of the Harvard School of Business Administration. He was born in Rutherford, W. Va., and was brought up on a farm.

Mr. Aronson has been with National Dairy since 1933, acting as comptroller of Breakstone Brothers, a subsidiary, before entering the treasurer's office of the parent company. He has served as director of the New York Chapter of the National Association of Cost Accountants, a member of the statistical committee of the International Association of Ice Cream Manufacturers and governor of the Harvard Business School Club of New York. He is also a graduate of the Harvard School of Business Administration, and was born in Boston.

Mr. Maurhoff joined the company in 1941, after ten years as an analyst in the statistical department of Wood, Struthers and Company. He was educated at Rensselaer Polytechnic Institute and Columbia University. He was born in Brackenridge, Pa.

●

BOWMAN CELEBRATION

"Pioneer Day" was celebrated by Bowman Dairy Company, Monday, April 19. This annual event honors Bowman employees who have service records of 25 years or more, and culminated this year with a Special Meeting held in the Grand Ballroom of the Lake Shore Club. Present at the Meeting were 511 Bowman employees with 14,910 years of cumulative service.

M. J. Metzger, Bowman Vice President, has the longest employment record, with 58 years of continuous service. Alex Graham, employee at Bowman's Englewood sales division, is the youngest member of the group, having reached his twenty-fifth year of service April 15.

Dr. David B. Peck, Bowman President, and himself a member of the Pioneer group with 42 years service, said, "Bowman is proud of all its employees and their service records. When we consider 15% of our employees have been with us 25 years or more, we know Bowman must be a good place to work. On the other hand, special tribute must be given to our pioneers who have given daily co-operation for so many years in providing service to the public."

FAIRMONT PROMOTES TWO

Fairmont Foods Company, formerly Fairmont Creamery Company, of Omaha, Neb., has promoted two men into new managerial jobs, L. E. Hurtz, president, announced.

A. W. Roy, Omaha plant manager the past eight years, on April 1 will become manager of the larger plant at Sioux City, Ia. H. A. Brockmyer, Omaha plant merchandising manager, will step up to plant manager. Mr. Roy came to Omaha from a post as manager of the Huron, S. D., plant of the company. Mr. Brockmyer, at the Omaha plant eight years, formerly headed the ice cream division in the Columbus, O., branch.

"What's she so snooty about?"
"Haven't you heard? The boss sends her eggs to market in SELF-LOCKING CUSHION EGG CARTONS!"
one dozen eggs

SELF-LOCKING EGG CUSHION CARTONS

A FEW USERS:

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Lambrecht Foods Company - - - - - - - Rieck McJunkin Dairy Company
Sheffield Farms Company, Inc. - - - - - - - - - Western Maryland Dairy
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ABELE JOINS DIVERSEY

C. A. Abele, Director of the Country Dairy Inspection Section of the Chicago Health Department since 1940, has resigned to accept a position as Director of Public Health Research of The Diversey Corporation.

Mr. Abele is well-known in public health circles. During World War I, he was a member of the United States Public Health Service. He organized the Bureau of Inspection for the Alabama State Department of Health, an organization which he served for 20 years. He is a member of the Surgeon-General's Milk and Food Sanitation Advisory Board. Mr. Abele was also president of the International Milk and Food Sanitarians fro m1942 to 1944, and at present is chairman of that group's Committee on Sanitary Procedure. He is a Life Fellow the Public Health Association and, in that organization, is a referee on the Committee on Standard Methods for Dairy Products. During 1947, he was president of the Chicago Dairy Technology Society.

C. A. ABELE

●

DUTTON APPOINTS BROBST

Mr. C. V. Brown, President of the C. H. Dutton Company, Kalamazoo, Michigan, boiler manufacturers, recently announced the appointment of Guy H. Brobst as Sales Manager of the Company.

Mr. Brobst is well known in the trade, having been in the business many years. For three years prior to his present appointment, he had held the position of Sales Manager of Orr & Sembower, Inc., Reading, Pennsylvania, with whom he had been connected for twenty-eight years.

Mr. Brobst will be in complete charge of all sales activities for the entire Dutton line of high pressure boilers and packaged steam generators. He will make his headquarters in the company's home office in Kalamazoo.

●

DAIRY BRANCH DIRECTOR

Appointment of E. M. Norton as Assistant Director of the Dairy Branch, Production and Marketing Administration, was announced today by PMA Administrator, Jesse B. Gilmer. Mr. Norton will have responsibility of coordinating and supervising the activities of the Purchase and Sales Division, Inspection and Grading Division, and Market News Division of the Dairy Branch. Mr. Norton will assume his new duties immediately.

Mr. Norton has had 13 years' experience with the Department of Agriculture. His dairy experience includes heading the Dairy and Poultry Procurement Division of the Purchase Branch of the former Office of Supply (1940-1941) and 3½ years with the Dairy Branch where he is presently employed.

Don Anderson, Assistant Director, will be responsible for the Manufactured Dairy Products Division and Research and Analysis Division.

H. L. Forest will continue to act as Acting Director in the absence of Mr. S. W. Tator who is presently absent from the Branch because of illness.

●

KRAFT GETS ENGINEER

Harry G. Podlesak, executive engineer, was elected to the board of directors of the Kraft Foods Company at the company's annual meeting here Wednesday. John H. Kraft was re-elected president and other officers and directors were re-elected.

Podlesak joined Kraft early last year. A graduate of the University of Illinois, he worked with Link Belt in Chicago and Detroit, going to General Motors in 1933. He served in various capacities with that company, and was plant manager for body building and final assembly for the Chevrolet Cleveland division.

A nationwide program of new plant construction and remodelling, building of new sales and distribution branches, factory and office layout and other engineering details are under his direction at Kraft.

●

MICHIGAN ASSOCIATION

At a meeting of the Board of Directors of the Michigan Allied Dairy Association held April 8, 1948 in Lansing the following officers were elected for the ensuing year:

President C. A. Carver, McDonald Ice Cream Co., Ann Arbor; Vice-President C. L. Reynolds, Kraft Foods, Pinconning; Treasurer T. H. Broughton, Michigan Milk Bottle Exchange, Detroit.

Directors of the Association include:

John Wurster, Ann Arbor; Francis Bouford, Pontiac; D. R. Edgerly, Grand Rapids; Glenn L. Orr, Detroit; Robert C. Wothe, Detroit; J. Neal Lamoreaux, Comstock Park; Ivan K. Maystead, Osseo; Fred Meyer, Fairhaven; Howard F. Simmons, Detroit; John Fleishmann, Saginaw; Conrad Morzinski, Auburn; Ray E. Pretzer, Kalamazoo; Paul Dew, Bad Axe; Martin Seidel, Bay City; Henry Kowalk, Flint; Herbert Dunsmore, Battle Creek; Grey Turney, Lansing; R. S. Murray, Dearborn; Cecil Mallory, Detroit; William Molloy, Grand Rapids. Leonard N. Francke was reappointed Secretary.

●

Honored by Dairy Mixers

Dinner Tendered E. A. Masten, C.M.P.A. Executive, Appointed Head of New Hampshire Cooperative

More than sixty members of the New England Dairy Mixers honored E. C. Marston, former Assistant Manager of tthe Connecticut Milk Producers Association at a dinner held in the Garde Hotel in Hartford recently. Masten who has been appointed General Manager of the Manchester Dairy System in Manchester, N. H., was given a handsome Parker '51 desk set by the group.

ED. BLAKELOCK presenting E. C. MASTEN with a Parker's '51 Desk Set.

Among the guests were Ken Geyer, General Manager of Connecticut Milk Producers Association, D. O. Hammerberg, Connecticut Milk Administrator, H. Clifford Goslee, Connecticut Department of Farms and Markets, Lewis Daniels, President of the Connecticut Dairymen's Association, Lyman Hall, President of the Connecticut Milk Dealers Association, Emil Godiksen, President of the Hartford Milk Dealers Association, L. H. Grant, Vice President of Connecticut Milk Producers Association and President of the Connecticut Council of Farmers Cooperatives, Phil Wadhams, Secretary of the Connecticut Farmers Cooperative Auction Association and Herbert M. Ewell, President of New England Dairy Mixers and New England Representative for Pennsylvania Salt Mfg. Co.

Toastmaster for the evening was Harry Hamilton. Ed Blakelock was in charge of arrangements. Dairy Mixers who assisted on commmittees were Fred Armstrong, Walter Shanaman, Joseph L. Post, Angus Shipley, and John Stavely. John Seramet of the C.M.P.A. assisted on the invitations.

BAKER ICE TRANSFER

South Windham, Me.—The Baker Ice Machine Co., Inc. announces the transfer of Mr. Roger Sprague from the company's St. Louis District to the Home Office in South Windham, Me., where he will act as Special Representative in the Sales Department.

Mr. Sprague has been with the Baker organization since 1928, having originally entered the refrigeration and air conditioning business in 1910. He has had wide experience in all phases of the industry and has specialized particularly during recent years in low-temperature applications for fruit and vegetable quick freezing.

●

NAMED SALES MANAGER

The Heil Co., Milwaukee, announces the appointment of Wm. E. Simons as General Sales Manager of the company.

W. E. SIMONS

Mr. Simons has been Sales Manager of the truck body and hoist division of the company for several years and now heads all six sales divisions.

Other executive appoints include: Harry F. Pugh, Vice President in Charge of Sales and Advertising; Arnold F. Meyer, Vice President in Charge of Engineering; Joseph J. Rosecky, Vice President in Charge of Manufacturing; J. F. Horn, Controller, Assistant Secretary and Assistant Treasurer; Earl C. Gilmore, Assistant Treasurer; Allan E. Magee, Assistant Secretary of The Heil Co. and Secretary of Arnold Dryer Company; Ed Fellows, Jr., Director of Purchases.

●

WINDOW AND IDEA CONTEST

Ice Cream Merchandiser, monthly dealer publication which the Ice Cream Merchandising Institute sends to Wholesale Ice Cream Manufacturers for their retail dealers—features a contest for the June 1948 issue.

The best window featuring "Take Home" Ice Cream installed during June, together with the best idea for stimulating "take home" sales, either hand packed or factory filled, will bring the dealer who submits it a $100.00 U.S. Savings Bond — Second prize $50.00 U.S. Savings Bond — Third prize $25.00 U.S. Savings Bond, with ten additional prizes of autographed copies of "Let's Sell Ice Cream."

The salesman who services the winning account, will receive free tuition (value $115.00) to an Ice Cream Merchandising Institute Training School for Ice Cream Company Merchandisers.

Announcement of the contest, with a tear sheet of the page from the June issue of "Ice Cream Merchandiser" in which the announcement will appear, was sent all subscribing companies recently.

"The Ice Cream Merchandising Institute hopes by this means" says George W. Hennerich, Managing Director, "to focus attention on this important avenue for creating additional sales of ice cream, at the same time encouraging the store to tie in with June Dairy Month publicity. We believe many entries will come to us and expect genuine interest on the part of Ice Cream Companies and their retail outlets."

●

GOLDEN STATE MANAGER

Mr. Frank E. Buck, President of Golden State Company, Ltd., today announced the appointment of Mr. Paul Young as Acting General Manager of the Company.

Mr. Young joined the Golden State Company in May, 1938, in the capacity of Assistant Manager of the Golden State Sales Corporation. Subsequently, he was appointed Vice-President and Manager of that Corporation and in addition was placed in charge of the Golden State Company's midwestern and eastern operations, with headquarters at Chicago, supervising activities of that office relating to manufacture, sales, and procurement of products, and he maintained contacts with national accounts and governmental agencies. He was elected a Vice-President of Golden State Company, Ltd. on May 29, 1947, and assigned to new duties in the capacity of Assistant to the President, with headquarters in San Francisco.

●

CHANGES IN OMAHA

Walter J. Kirkbride, a vice-president and director of the Roberts Dairy Company of Omaha, has quit his active role in the firm which has plants in Sioux City, Ia., and Lincoln and Waterloo, Neb.

J. Gordon Roberts, president, said that Mr. Kirkbride will continue to keep his offices, but will be a Consultant.

Mrs. Roberts who has managed the Omaha plant will become executive assistant to the president. M. D. Graham has been placed in charge of farm procurement men. He formerly was in charge of procurement at Sioux City. Thomas C. Kinsler was moved up from supervisor of procurement at Omaha to manager of the plant there.

GIRDLER APPOINTS KENNEDY

Jack K. Kennedy has been appointed a sales representative of the Votator Division of the Girdler Corporation, Louisville, Ky., and assigned to the staff of Sam N. Welsh, Eastern sales manager, 150 Broadway, New York.

JACK K. KENNEDY

A native of Fort Wayne, Ind., Mr. Kennedy attended Northside High School in that city, and received his B.S. degree in mechanical engineering from Rose Polytechnic Institute in 1942. Immediately after graduation he entered the Army's ordnance department. He served as a first lieutenant in the European Theater, and is now a captain in ORC. He joined the Votator Division on February 14, 1946. He began as a draftman, and later became a project engineer. He is a member of A.S.M.E. and Alpha Tau Omega.

●

GREEN SPOT CAMPAIGN

Green Spot, Inc., Los Angeles producers of top-quality Fruit Juice Concentrates, distributed exclusively through dairy supply jobbers, advise that as a result of their powerful Consumer Advertising Campaign on dairy-delivered GREEN SPOT Orangeade, using such leading national magazines as Life, Saturday Evening Post, Woman's Home Companion, Ladies Home Journal, McCall's, Parents', etc., an unprecedented number of dairies are starting to distribute the product for the first time. New distributors include two of the most important chain dairy organizations, with 41 plants, the largest dairy in the United States and several hundred smaller ones.

The National Magazine Advertising Campaign, which started in April and will continue at least through August, is stimulating Consumer Demand by reaching more than 50,000,000 readers a month.

●

NEW RESEARCH SUPERVISOR

New York—John E. Garizio has joined the technical department of Sheffield Farms Company, Inc., as a research supervisor. His responsibilities will include the development of new milk chemical products for pharmaceutical uses.

Mr. Garizio is a graduate of the College of Pharmacy, Columbia University. He assumed his new position after 13 years of research and production experience in the pharmaceutical industry.

MOJONNIER APPOINTMENTS

C. S. McBride and P. J. Swaluk Named East-West Representatives

Chicago, Ill.—Clarence S. McBride, better known to the trade as "Mac," will represent Mojonnier Bros. Co., nationally-known dairy processing equipment manufacturers, in the northwest territory including Washington, Oregon, Idaho and Wyoming. He expects to locate somewhere in the vicinity of Portland or Seattle.

Practically his entire business career to date has been spent in the dairy business. For six and one-half years he

C. S. McBRIDE

P. J. SWALUK

was production manager of Michigan Producers Dairy at Adrian, Michigan. The previous nineteen years he was associated with the Detroit Creamery Company of Detroit, as manager of condensing operations for city and country plants.

At the same time it was announced that Peter J. Swaluk has been appointed Mojonnier sales representative in the states of Maine, Massachusetts, New Hampshire, Vermont, Connecticut and Rhode Island. He will work under Herbert Leidell, Mojonnier Eastern Sales Manager.

●

MILK PRICE STUDIES

Urbana, Ill.—Dr. R. W. Bartlett, University of Illinois agricultural economist will serve as chairman of a five-man committee named to study milk prices in St. Louis and Kansas City. The study is being made at the direction of the federal milk market administrators of the two cities.

Other members of the committee are Dr. George Montgomery, Kansas State College; Dr. E. H. Matzen, University of Missouri; Father Leo Brown, St. Louis University; and Don Henry, St. Louis Federal Reserve Board.

In addition to directing the new study Dr. Bartlett is chairman of the committee on consumption and demand studies of the agricultural experiment stations in the north central states, and secretary of the Midwestern Milk Marketing conference which is being held at East Lansing, Michigan, April 2-3.

TIN PLATE PRODUCTION

Metal can shipments to packers of all types of products totaled a record-breaking 2,956,452 tons in 1947, says the Can Manufacturers Institute which cites U. S. Department of Commerce figures summarizing can production for last year. This volume, the largest in can making history, is a new production high for the industry. The previous top output for a year was the 2,844,678 tons chalked up in 1941.

Top production month of the past year was August when 387,817 tons of steel-and-tin containers rolled off production lines. This represents an increase of 44,479 tons over the top month, August, of 1946.

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TRENDS IN FLUID MILK

(Continued From Page 5)

This matter of dairy price relationships is important in connection with the study of the proposed Boston Class I price formula. This proposed formula leaves out of consideration the competition of evaporated milk, but attempts to achieve a consumer demand relationship based on department store sales and the percentage of Class II milk in the market. In my opinion, this relationship is too indirect on which to base the relationship of consumer buying preference by spreading it over the whole field of consumer purchases, when a more direct one is available. Variation in sales between different commodities indicates that consumer preference varies widely at different times and in different places. A more uniform and reliable index, from a competitive standpoint, in my opinion, is provided by evaporated milk than by the department store sales index. From the standpoint of maintaining sales, I think it also is a mistake to permit milk price maladjustment to continue to the point where the supply of milk that is available in a market must become a burdensome surplus before a change can occur. If that policy were followed, we would run the grave risk of consumers acquiring buying habits for products other than fluid milk and cream due to the delay, that it would take years to overcome.

Need Uniform Production

In considering the establishment of desirable trends, there are two other needed adjustments that will increase sales and result in higher net returns to producers. These improvements are more uniform production throughout the year and the opening up of closed markets such as New York City to approved sources of cream from the Middle West. This will make more milk available for fluid consumption, reduce the percentage of milk in the lower classes, and result in a higher blended price to producers. Price policies that were followed during the war by the government resulted in wider seasonal spreads in production. More uniform production can be secured throughout the Northeast by fall freshening of all heifers and by growing improved roughages supplemented by proper grain rations. This will yield a higher income from milk on a yearly basis. It will also result in a more uniform distribution of labor on farms throughout the year and cut down the investment in, and cost of operation of surplus handling plants. There will always be some seasonal variation in production, but the nearer daily production comes to fluid milk needs, the greater will be the net return and efficiency of production to farmers, and the lower the operating cost to fluid milk handlers.

Improvements in merchandising have resulted from the adoption of every-other-day delivery of milk and by the development of fluid milk products to receive greater consumer acceptance. Improvements in quality and research have made this possible.

From a long range standpoint, it must be recognized by consumers and all others concerned with the fluid milk industry that returns to producers and handlers must be sufficient to maintain the business on a profitable basis, otherwise not only will supply be impaired, but consumer acceptance will be reduced. Returns to producers and handlers since the war have not been sufficient to permit operations on a sound basis and encourage the expansion of production, handling and sales facilities to meet the needs of our rapidly growing population.

The fluid milk business never was a simple business. No other food product requires such close control of sanitation, temperature, careful handling, and prompt delivery to consumers. The complex problems of the dairy business requires recognition of their mutual responsibilities by all those who are engaged in production, handling, distribution, and governmental control of milk. There is no more highly competitive food business than milk. This does not alter the fact, however, that the principles that should be followed must embrace the welfare of the entire industry. Arbitrary exercise of power for selfish advantage of any group has no place in any phase of milk production, handling, distribution, or governmental control and inevitably injures every phase of the business including those for whose benefit such power is mistakenly exercised. The sound policy for the dairy industry is coordinated effort rather than reckless conflict.

Metropolitan Certified Milk Producers Hold Annual Meeting

Louis Bromfield Principal Speaker — Urges Fortification of Soil Rather than Food — Record Attendance

A PLEA TO FORTIFY the soil with the needed minerals rather than to fortify milk, bread and other foods with vitamins was made by Louis Bromfield, famed author, in an address at the annual dinner-meeting of the Metropolitan Certified Milk Producers' Association at the Hotel New Yorker in New York City on Monday evening, March 15. Nearly 200 persons, largest turn-out in the history of the Association, attended.

"We should not have to take vitamins in pill form nor fortify milk, bread and other foods with vitamins," Mr. Broomfield declared. "We should fortify the soil and process food properly. This is a big problem facing the United States. It costs us a great deal in taxes to support people living on poor land."

The need for soil enrichment in the United States is serious enough, Mr. Bromfield said, but not as alarming as in other sections of the world.

Soil and Civilization

He urged his listeners to place a piece of thin paper over a terrestrial globe and designate the parts of the world where civilization has decayed or disappeared. "Lay aside your paper and then with another sheet of paper placed over the globe, mark the portions of the world where the soil is poor," he said. "You will find the uncivilized areas coincide exactly with the areas where the soil is poor. And the same experiment with a map of the United States will result in the same findings."

As an example of the far-reaching possibilities of soil enrichment, Mr. Bromfield told of an experiment by the Sloane Institute in Kentucky.

"They built the finest buildings and employed the finest group of school teachers," Mr. Bromfield revealed. "But they found the children did not learn as much as they should have in view of the splendid surroundings and capable teachers.

"So they started working on the diet of the children. But this still was not the answer. They solved the problem finally by putting back calcium, phosphorous and potash into the soil. After a while the children became normal and could learn to an extent which spoke well for their unusually good equipment and their excellent teaching staff."

Mr. Bromfield spoke of his own Malabar Farm, the thousand acre development near Lucas, Ohio, which has become internationally famous because of the success which Mr. Bromfield has achieved through putting into practice his theories about scientific farming.

"Our plan is to study nutrition and resistance in plants, animals and people. We began on a worn-out tax-delinquent farm and built it up to the point where today it produces as fine forage, pasture and grass silage as is possible to produce anywhere. This on land which was not worn out at all, but which had been neglected. I had seen it go downhill in my own lifetime.

"The land had in it fertility and every mineral needed, but it was unharnessed fertility. The fertility had to be made available. The potash and phosphorous could not get into the plants because it was bound in the soil. We added limestone and calcium, and the lime gave us legumes. We dug deep pits into the soil and saw how deep the roots were."

Law of Balance

Mr. Bromfield said he and his workagriculture just as there is a law of balers had discovered a law of balance in anee in science. There is a primary balance which is a balance between organic material and minerals, he stated.

"If either of the balances is upset, everything goes wrong," Mr. Bromfield declared.

Mr. Bromfield said a revolution is coming in agriculture and in medicine relative to nutrition.

"A certain amount of bacteria should be tolerated and it is this resistance which makes good nutrition. My wife, my secretary and myself made a trip to the Orient a while ago and none of us was inoculated against any of the dreadful diseases of that part of the world. Yet none of us had so much as a head cold.

Sees Opportunity in Agriculture

"We at Malabar have just scratched the surface. In the last twenty-five years our agriculture experts have learned more about farming than in the whole history of the world. If I were a young man, I would go into agriculture in a big way."

Thurman B. Givan, M.D., Chairman of the Kings (Brooklyn) County Medical Milk Commission, was toastmaster at the dinner-meeting. Alfred S. Cook, of the Walker-Gordon Laboratory, Plainsboro, New Jersey, spoke on the history of Certified Milk and some possible plans for the future. E. P. Brown, secretary and treasurer of the Metropolitan Certified Milk Producers' Association, introduced Mr. Bromfield. Francis W. Morrow, of the Sheffield Farms Products Company, New York City, retiring president of the Association, formally opened the program and introduced the toastmaster.

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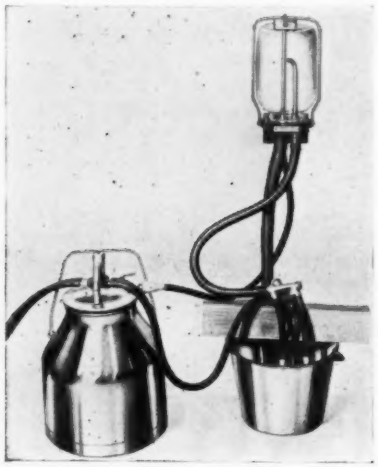
USING OUR SEPARATOR • ITEMS OF INTEREST SKIMMED FROM HERE AND THERE

Milker Washer

A NEW automatic Milker washer, designed for cleaning of long-tube machines with the washing compound "Calglo," is said to have won the approval of milk producers and milk inspectors in field tests on the score of efficiency in cleaning, ease of use and low cost.



The manufacturer, Calgon, Inc., a Pittsburgh chemical engineering firm known in the dairy industry for its washing compounds and water-conditioning work, reports that the new automatic washer has no moving parts, yet provides a positive scrubbing action with solution and air through the inflator assembly; automatically flexes the inflators during the cleaning and rinsing periods; permits use of the milker pail as a second moisture trap; operates with as little as 1 to 1½ gallons of water; and on any vacuum line and pump,—either by itself or while other milkers are still operating.

The new Calgon washer is well-suited to "managed" or "three-minute" milking, because each milker, in turn, may be attached to the washer and left for automatic cleaning without requiring supervision or special adjustment. Each set of inflators is thoroughly cleaned while the operator goes about his other work. After the washing is completed, the washer may be used for rinsing and sterilizing the milker.

Proper use of the washer with "Calgo," according to the manufacturer, will prevent milkstone formation, so that use of milkstone removers or acid preparations is unnecessary. The washing compound "Calglo" effectively controls the hardness of cleaning water, and solubilizes milk soil, Calgon field representatives explain. Its principal ingredient is "Calgon," a water-normalizing material that combines with the hardness salts in water and milk to prevent the salts from precipitating to form insoluble film.

The water is said to be completely softened, milk solids are not coagulated and the solution therefore is free of sticky sludges. This conditioning of the hard water permits the other agents in the compound to perform their cleaning function, and because the solution is free-rinsing a clean surface is provided so that the full efficiency of the germicidal treatment may be realized.

•

Concrete Floor Repairs

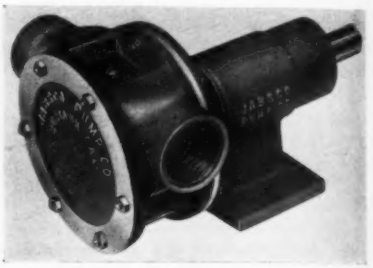
PATCHING OF cracks, ruts and shallow holes in concrete floors is shown and described in a new leaflet received from the makers of Smooth-On No. 7B Quick Floor Patch Iron Cement. The leaflet explains the application of Smooth-On, its characteristic of expanding slightly as it hardens, and its quick-hardening feature. These Smooth-On patches, according to the leaflet, are hard, dustfree and oil-proof. Copies of this descriptive leaflet may be obtained by writing Smooth-On Mfg. Co.

•

Pump for Food Industry

A STAINLESS STEEL PUMP intended for use in the chemical, bottling, food and dairy industries has recently been announced by the Jabsco Pump Company of Burbank, California.

The pump has but one moving part, an impeller made of neoprene compound.



The resilience of the impeller results in automatic compensation for wear in the pump body and facilitates passage of suspended solids without jamming.

The pump can be operated in either direction and mounted in any position without any change in efficiency. Positive action action mechanical seal is provided. Bearings are factory lubricated and sealed. A wide range of operating speeds, from 100 to 1750 RPM offers a maximum of flexibility in driving arrangements.

The pump is available at the present time with provisions for 1½ inch pipe connections only.

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on the hazards of handling
CORROSIVE SUBLIMATE TABLETS
Watch for Our Announcement — Nothing Like It on the Market
Our Tablets are SUPERIOR
HIGH in QUALITY — LOW in PRICE
WRITE TODAY ★ IT WILL PAY DIVIDENDS
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A DEPENDABLE NATIONAL OUTLET
Buyers Roller and Spray Whole and Nonfat Dry Milk Solids. Bulk Sweetened Skim, Condensed.
It will pay you to supply us regularly.
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27 West Front Street Cincinnati 2, Ohio
Phone Main 0461 Special Long Distance Phone Cincinnati LD 163

Controlling Corrosion

USE OF "MICROMET" in controlling corrosion, preventing lime scale and stopping "red water" discoloration in commercial, farm and small industrial and institutional water systems is described in a new illustrated folder published by Calgon, Inc., Pittsburgh. Minute amounts of Micromet, slowly dissolved into the water systems by means of a Micromet feeder, control these troubles in water systems handling up to 1,000,000 gallons per month, the folder explains.

Practically no attention is required with this treatment, it is pointed out; the user simply adds a small amount of Micromet to the feeder once a month to replace that which has dissolved. Micromet is a food-grade vitreous phosphate, which does not affect the taste or odor of the water. This treatment for corrosion, lime and red-water problems is especially recommended for use in hospitals, schools, apartment houses, small hotels, restaurants, small manufacturing plants, farms, dairies, theaters and other buildings or establishments using up to 1,000,000 gallons of water monthly.

●

Hinged-Nose Bottlers' Truck

LEWIS-SHEPARD PRODUCTS, Inc. of Watertown, Mass. presents a new Bottlers' Case Truck. The new Truck is equipped with a Hinged Nose which, in retracted position, saves as much as 7″ in storage space. This space-saving feature permits storage of the truck within the enclosure of the new style closed body highway delivery vehicle, preventing dirt, water, or ice from splashing the wheels, and also keeping it away from harm or pilferage.

The new Case Truck is of tubular steel construction with wheels turning on roller bearings. Magnesium hubs are furnished, and wheels are equipped with 6″ x 2″ Solid Cushion Rubber Tires. tioning and refrigeration systems, and the cooling systems for industrial equipment are among the many applications.

The Hinged Nose locks in both retracted and load carrying position by means of an over center spring. Nose position can be easily changed by pressing on a foot lever on the operator's side of the truck.

●

Illuminated Tally Board

AN ELECTRICALLY ILLUMINATED tally board called the "Tally-Lite," which throws a clear light on tally sheets for speeding checking and entering where there is little or no light, has been developed by Clyne Manufacturing Company of Cincinnati.

The unit is as compact and fits into one hand, leaving the other hand free for entries.

The device eliminates the need of flashlights and lanterns. The safety factor, the manufacturer feels, will be very important in mines, ship holds, railroad cars, industrial plants and all places where there is poor illumination for checking and time study work.

Checkers and dispatchers in truck docks, railroad terminals, freight yards and produce markets, who must take records or inventories in bad light, the manufacturer says, will find the "Tally-Lite" convenient and accurate.

The "Tally-Lite" has a heavy filament, three volt bulb, and uses 3 standard flashlight cells. The light assembly, back board and clamp with batteries weighs only 24 ounces.

All-Wheel-Drive Conversions

MARMON-HERRINGTON COMPANY, Inc., Indianapolis, Indiana, originator of *All-Wheel-Drive* conversions for Ford vehicles, has announced that it is now in production on the *All-Wheel-Drive* conversions of the new 1948 Ford models.

Marmon-Herrington *All-Wheel-Drive* is designed and engineered specifically for Fords. It is not an attachment, but is actually built into each vehicle, becoming an integral and permanent part.

The following are the major changes made by Marmon-Herrington in converting Fords to *All-Wheel Drive:*

Original front axle assembly is removed and new front driving axle installed. This axle has standard Ford differential, ring and pinion gears and is equipped with specially-designed constant velocity universal joint steering ends for safe, easy steering.

On units smaller than one ton a transfer case is installed for transmitting power to the front-axle propeller shaft. On units of one ton and over a new two-speed auxiliary transmission of Marmon-Herrington's own design is installed. This provides an exceptionally low final reduction for really tough going.

Necessary changes are made in steering assembly and hydraulic brake connections.

On 6-wheel-drive models the frame is lengthened and reinforced and a third driving axle and wheel assembly installed.

Tires and accessories are replaced, where necessary, and special bodies installed as required.

On completion, all Marmon-Herrington converted Fords are tested under actual working conditions.

Wherever possible, Marmon-Herrington utilizes standard Ford parts in converting to *All-Wheel-Drive.*

FOR A DEPENDABLE SOURCE OF HIGH QUALITY DAIRY PRODUCTS, CALL US.

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FRESH CREAM
FROZEN CREAM
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COTTAGE CHEESE
FARMERS CHEESE
POT CHEESE
BUTTER
BUTTERMILK
DRIED SKIM MILK SOLIDS
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Electronic Relay Control

FOR A LONG LIST OF INDUSTRIAL applications where pressure, liquid and temperature controls are required, R-S Products Corporation, Philadelphia, Pa., announces the new Leveltronic Relay. The applications of the control, include liquid level and interface control and alarm, pressure and flow control and alarm, temperature control and alarm, high foam control and alarm.

In the operation of the Leveltronic control relay, the circuit is of the positive acting thyratron type with the tube

current limited to less than 1/3 its maximum value, resulting in long, trouble-free life and low maintenance. Two models cover a range of 20 ohms to above 2 megohms with continuously variable sensitivity giving 2 to 1 discrimination over the full range. The circuit is stable over a wide range of voltage fluctuations. The relay has double pole, double throw action with heavy contacts capable of actuating up to a ½ horsepower motor. Direct and reverse acting units are available. Construction is in accordance with NEMA standards, with the low-voltage (6 volts) control circuit completely isolated from the line. The actuating circuit energy is approximately 1 billionth of a horsepower, causing no appreciable heating, arcing, ionization or chemical change. Probe to relay distances can be 3 to 5 times longer, says the manufacturer, than in other units now on the market.

A descriptive catalog which details specific variations of applications, the various available types of Leveltronic relay and full information on necessary accessories is available on request.

●

Steam Detergent Cleaning

A THOROUGH-GOING REVIEW of the theory and applications of industrial Steam-Detergent Cleaning is presented in an illustrated Service Report recently published by Oakite Products, Inc., New York.

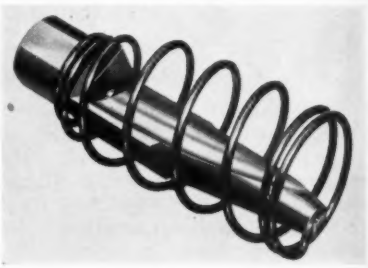
The Service Report defines Steam-Detergent Cleaning as the simultaneous application of three different actions: (1) the *physical action* of steam pressure and hot water working their way through successive layers of grease and dirt; (2) the *dissolving action* of heat on oil, greases and other deposits; and (3) the *chemical action* of the detergent in wetting, penetrating and emulsifying surface deposits. Long experience in industrial cleaning work, the Service Report states, has indicated that this simultaneously applied combination of efficiency factors provides the ultimate in cleaning speed and thoroughness. Typical instances where the application of Steam-Detergent Cleaning has made possible time and cost savings in Dairy Plants are reported to be: cleaning and paint-stripping of milk wagons, milk cases, bottle conveyors, exteriors of bottle washing machines; underpart of railroad milk tank cars; red brick and red tile floors; butter print room machinery; milk-can conveyor tracks, etc.

In addition to listing many tasks for which Steam-Detergent Cleaning has demonstrated exceptional effectiveness, the Service Report supplies much data on types of steam-cleaning equipment available, on specific detergents designed for use with such equipment, on the preparation of efficient working solutions, and on the use of steam-cleaning units for stripping oil-base paint, lacquer, enamel and other organic finishes from various surfaces. Readers desiring free copies of this new Service Report may obtain them by addressing Oakite Products, Inc., care of this publication.

●

Damage-Proof Nozzle

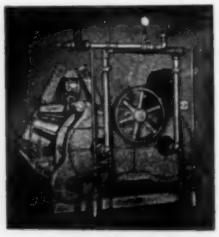
To provide a safeguard from accidental bumping, Spraying Systems Company has designed a spring guard for their FLATJET nozzles. This guard protects the large deflector face of the nozzle without interfering with the spray.



Such protection is highly desirable in this type of nozzle since damage to the face of the deflector can often alter the characteristics of the FLATJET spray. Design of the FLATJET provides a sharp spray for washing . . . the characteristic of this spray being established entirely by the tri-curved face of the deflector.

This FLATJET nozzle is built with two types of connections . . .(1) with a standards ¾" garden hose thread, and

Better DRY MILK



AT LOWER COST
DRY MILK MACHINES
Built in Five Sizes

The patented, glass-smooth, "20-year cylinders" give years and years of maximum production of a superior dry milk at the lowest possible cost.

Many other exclusive features insure long life with low steam and power costs.

Complete details upon request.

OVERTON MACHINE COMPANY
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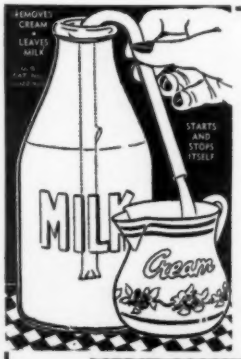

NEW — INTERESTING — USEFUL

MAGIC CREAM SIPHONS, for home use, remove cream from bottled milk, for use with coffee, cereals and desserts.

PLEASE OLD CUSTOMERS— WIN NEW FRIENDS

Leading dairy firms find Magic Cream Siphons a welcome sales booster aid. Housewives appreciate them and homes using a cream remover will consume more milk, when convinced by experience that many dishes are improved by the liberal use of milk instead of water in cooking. Free sample, for round or square bottles. Two models are made.

$15.00 per gross-$100.00 per 1000
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(2) with a ½" pipe thread. This nozzle is recommended for all types of washing operations such as washing off of floors or machinery. Use of the spring guard assures safety from damage due to accidental bumping of any kind. For easier portable use the nozzle is built of aluminum to keep weight at a minimum. Spring guard is made of phosphor bronze. Complete information may be obtained from Spraying Systems Co., care of this publication.

●

Dairy Products Transportation

DORSEY TRAILERS, ELBA, Alabama, have announced the availability of their new Refrigerated Truck Bodies designed for the safe transportation of Dairy Products.

This new design has an arc welded, all steel body structure and frame, fiber-

glass insulation, sealed combination steel floor and floor pan, with drains for quick easy cleaning.

The condensing unit is Freon-12 charged and electric motor driven. Cold holdover plates are installed for additional protection.

●

New Liquid Level Alarm

A NEW DEVICE TO SET off warning signals—bells, sirens or warning lights—when liquid levels in small boilers or various types of tanks reach predetermined low or high levels has been announced by The Reliance Gauge Column Co., 5902 Carnegie Avenue, Cleveland, Ohio. To be known as the "Levalarm," the device can be used on pressures up to 250 pounds. An electric switch is operated through the agency of a permanent magnet when a monel float rises or falls in a separate float chamber. The switch can be wired for a normallly open or normally closed circuit—is dust, vapor and explosion-proof. Levalarm is said to be sturdily built but sensitive to slightest water level variation.

●

Small Cooling Tower

A SMALL NATURAL DRAFT cooling tower that embodies the features found in larger towers has been placed on the market by the Marley Company of Kansas City.

The tower is made from California Redwood and galvanized hardware. The louvers have been made so that trouble from nails, bolts and backup strips have been eliminated the manufacturer declares. Structurally engineered to give maximum strength the tower has a spray system designed to give the maximum breakup at the lowest pressure. The structure has painted bronze nozzles and a basin made of steel and wood.

Erection, operation and maintenance instructions are furnished with each tower.

●

Truck Refrigeration System

A NEW PACKAGED TRUCK Refrigeration Unit that may be installed by the operator himself has recently been announced by the Kold-Hold Manufacturing Company of Lansing, Michigan. According to the manufacturer, this unit makes it possible for the operator to refrigerate his trucks at low cost without complicated installation or operation procedures. Like a domestic refrigerator, the truck refrigeration unit is a complete, self-contained refrigeration system.

When installing the refrigeration unit in the truck, it is only necessary to cut two square openings in the floor of the truck; one for the air intake and the other for the discharge. The unit is then placed over the openings and is bolted to the truck floor.

The Truck Refrigeration Unit contains heavy-duty "Hold-Over" Truck Plates which are connected to an air-cooled condensing unit. The cooling cycle is started by plugging in to any 110 volt electric outlet. Thus, the truck may be charged at any stop or wherever elec-

tricity is available. The manufacturer states that this unit will pull down the truck temperature overnight and that the charged "Hold-Over" plate will then maintain the predetermined low temperature of the truck throughout the next day's deliveries.

Being a packaged truck unit, it takes up little space. It keeps truck interiors clean, dry and odorless and provides dependable refrigeration at a cost of a few cents per day. Kold-Hold Refrigeration Plates, such as used in these units, have given satisfactory operation to hundreds of users for over 15 years.

Detailed information is available upon request to the Kold-Hold Manufacturing Company care of this pubulication.

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METAL SPONGES
Designed especially for cleaning all types of dairy equipment and utensils. Will not rust or splinter, cut the hands or injure metal or plated surfaces. Kurly Kate Metal Sponges are fast working, easy to use, and easy to keep clean. Made in STAINLESS STEEL, NICKEL, SILVER and BRONZE
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ORDER FROM YOUR JOBBER OR WRITE DIRECT
Kurly Kate
stainless metal sponge
FOR FASTER INDUSTRIAL CLEANING
SOFT ON HANDS
SANITARY

WANTS and FOR SALES

RATES: "Position Wanted," 50c. Limit of 50 words; 2c for each additional word. All other advertisements, 5c a word ($1.00 minimum). Keyed ads, 15c extra to cover return postage. The name and address should be included in counting the words. All payments strictly in advance.

FOR SALE — EQUIPMENT

FOR SALE—2 Rogers 6' diameter by 14' straight side copper Vacuum Pans, 5 double coils each; 2 Mojonnier 5½' sides by 7' diameter, 3 double coils and copper bottoms each; all complete with barometric leg condensers, vacuum pumps, steam headers and valves, all pans completely reconditioned good as new by Rogers' coppersmith. Also 6 Copper Hotwells; two 5' x 5'; four 6' high by 4' diameter. Lock Box 215, Eau Claire, Wisconsin. 5-M-3

FOR SALE—2 Factory Built Retail Milk Wagons. Very good condition, only $300.00 each, with Tires and Tubes. W. D. Wright Produce Company, Hobart, Oklahoma. 5-M

FOR SALE—Largest assemblage of Used and Reconditiontd Machinery under one roof. Good selection of Pasteurizers, Coolers, Bottle Washers, Bottle Fillers, Can Washers, Homogenizers, Pumps, Surge Tanks, Storage Tanks, Heaters, Separators, Weigh Cans, Filters, Ice Cream Freezers, etc. Write or wire your particular requirements and plan to visit our warehouse and shop. Lester Kehoe Machinery Corporation, 1 East 42nd St., New York 17, N. Y. 5-M

FOR SALE—Cornell University, Department of Dairy Industry, Ithaca, N. Y. All in good usable condition: Buflovac Vacuum Roll Dryer—Roll length, 20 inches, Roll diameter, 24 inches, complete with pumps, motors, and variable speed drive; Rogers Copper Vacuum Pan—Diameter, 36 inches, complete with pumps, motor and copper hot well; Two 220-gallon tinned-copper, horizontal coil Pasteurizers, complete with motors (one, Creamery Package — one, Cherry-Burrell); One Jensen, glass-lined, vertical coil sweetened condensed milk cooler, Capacity, 150 gallons; One R. G. Wright, 6-wide Soaker Washer, used only 4 years, complete with motors; Two steam-jacketed copper Candy Kettles, Capacity, 15 gallons, complete with agitators and motors; One 40-qt. Creamery Package Ice Cream Freezer, Direct expansion; One Limited Pulverizer—16 inches, Schutz-O'Heill Co., complete with 10 H.P. motor, 3 phase, 220 volt; One 6-valve Creamery Package Rotary Milk Bottle Filler and Capper — 16 qt. per minute. Additional information may be obtained from Prof. R. F. Holland. Items may be inspected at Ithaca, N. Y. Offers should be mailed to Cornell University Purchasing Dept. 5-M

FOR SALE—EQUIPMENT

FOR SALE—Complete Pasteurizing outfit, brand new, in ORIGINAL CRATES, including the following items: Francis Steam Generator, steam strainer and traps, valves and ferrules, SS tubing, fittings, etc.; Dump Vat, Line filter, two G & H pumps, 200 gallon DeLuxe Steriline, recording, indicating and space thermometers, etc. Original cost $3500.00—will accept $3000.00 cash f.o.b. Ruleville, Miss. For references contact any bank in Ruleville or Greenwood, Mississippi. G. A. Wilson, Ruleville, Mississippi. 5-M

FOR SALE

6 ft. Mojonnier Copper Vacuum Pan. 215 sq. ft. heating surface, includes 12" x 18" x 20" Granger Vacuum Pump.

R. O. Phillips-Wyeth Incorporated
Mason, Michigan

FOR SALE—4 Insulated, glass lined 3,000 Gal. capacity horizontal milk tanks, removed from Pfaudler Cars, in good condition, inside dimensions approximately 78 inches diameter by 14 feet long. Located Chicago District with available auxiliary electrical and agitator equipment. All available for inspection. Priced "as is." Communicate with H. L. Roth, Fruit Growers Express Company, 1101 Vermont Avenue, N. W., Washington, D. C. 5-M

FOR SALE—Two Creasy No. 2 Ice Crushers; one 45 H.P. Loco type boiler with water feeder and stack; two 1500 gal. brine tanks; one 100 Disbrow churn; one type M Milwaukee filler and capper with stainless steel bowl; one York brine cooling blower unit; one C. B. No. 6 cold milk filter; one ½ H.P. air compressor, mounted; Approximately 100-150 gross round Dacro 45 MM plain and lettered quart bottles; Approximately 1M wooden round quart cases. All these items must go at once; make a bid on any or all. Fritzel-Jayhawk, Lawrence, Kansas. 5-M

FOR SALE—1-500 per hour capacity Doering Butter Printer completely rebuilt, with wood hopper and box with glass top, in A-1 shape, good as new, three phase, 220 V motor—$750.00. Stoelting Brothers Company, Kiel, Wisconsin. 5-M

FOR SALE—500 No. Doering Printer, Model NB, Ser. No. 2223, Excellent condition. Also No. 52 DeLaval Separator. Best offer takes either machine. Level Valley Dairy Co., R. No. 1, West Bend, Wis. 5-M

FOR SALE

250 HP Boiler in excellent condition. 4 yrs. old, complete with oil burners, heater and controls.

R. O. Phillips - Wyeth Incorporated
Mason, Michigan

FOR SALE — MISCELLANEOUS

FOR SALE—Chocolate Milk made with Bradway Non-Settling Chocolate Syrup and Powder is superior. Place your trial order now. BRADWAY CHOCOLATE COMPANY, New Castle, Ind. 5 M-t.f.

FOR SALE—Used milk bottle crates. Can deface old name and rebrand. Write or phone for present day inventory. Ohio Creamery Supply Co., 701 Woodland Ave., Cleveland, Ohio. 5-M-t.f.

FOR SALE—Owners of Diamond T Pak-Age-Cars Milk Trucks, if your truck is tied up for transmission parts or worn out motors, we can sell you an exchange unit rebuilt with a 1942 Jeep converted engine and transmission with Chrysler Corp. gears. We have equipped several fleets in this area with complete satisfaction. For details write Delivery Truck Repair Co., 340 W. Wayne, Fort Wayne, Ind. 5-M-2

WANTED

WANTED—Good used milk plant equipment. Give complete information and quote best prices. Write Box 281, care this publication. 5-M

WANTED—Milk business in the Catskills. Have own milk supply and own bottles and cases. Financially good. Write box 282, care this publication. 5-M-2

WANTED—Skim Milk year round on contract basis. Will use twice as much in flush period as rest of year. Can also use surplus cream. Will also consider buying an interest in a creamery located within 250 miles of Philadelphia where good milk supply is available. Can be approved or unapproved for Pennsylvania. Write Box 283, care this publication. 5-M-2

BROKER

If you desire to purchase or dispose of Milk Plants, either shipping or manufacturing, or need appraisals, write O. H. Bean, 23 Leslie Ave., Utica, N. Y. Ph. 2-1716. Real Estate Broker. 5-M

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Reg. U. S. Pat. Off.

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POSITION WANTED

EXPERT CHEESEMAKER—20 years' experience, specializing in Swiss, Muenster, Limburger, Cottage, Process. Technically trained, familiar with all phases of the cheese business. German Dairy School graduate. Write Box 284, care this publication. 5-M

GREEN PASTURE CONTEST

Fifty points for seasonal grazing and 50 points for management. Those ten words give in brief the basis on which New England's Green Pastures will be judged in the New England wide contest just getting under way.

Our whole objective, says Ralph W. Donaldson, extension agronomist at the University of Massachusetts in Amherst, is better feed and more of it all season long for the dairyman's cows. Every dairyman, at least when he stops to think about the matter, realizes that more pasture feed on his dairy farm will conserve grain and reduce feed costs. That means more dollars and cents on the milk check.

Donaldson hastened to add that pasture for young stock is important, too. In fact, up to 15 points maximum may be deducted from the total score if young stock pasturage is inadequate.

Earliness, utilization in the flush period, plenty of grazing in July and August and in the fall are the points included in seasonal grazing.

Under management will be such points as early cutting to improve hay and increase pasture, quality of the pasture, management and convenience of the pasture area.

Full information on how these points may be developed on the farm to best advantage can be obtained from the county agricultural agents. Agents also have enrollment blanks for the contest, says Donaldson.

In Massachusetts the enrollment blanks should be filled and returned to the agent by April 15.

WHAT'S HAPPENING TO COWS?

(Continued From Page 12)

ment. A great deal of progress has already been made in this direction as the statistics cited above indicate.

Progress in Mechanization

During the last thirty years mechanization has progressed at startling rate. Farm tractors, for example, have increased from a total of one thousand in 1910 to more than two and a half million in 1947. Milking machines numbered twelve thousand in 1910 and zoomed to four hundred and fifty thousand by 1947. As electrical power becomes available in rural areas additional farms will turn to electric water coolers, electric grain hoists, milking machines, electric powered separators, hot water heaters, water pumps and all of the numerous items that tend to reduce the amount of hand work in livestock operations. In spite of the fact that these improvements are usually considered as long term developments the phenominal increase in milking machine use in the last five years suggests that mechanization may be an immediate factor in the maintenance of adequate cow numbers. The number of milking machines on U.S. farms increased by two hundred and thirty thousand between 1941 and 1946. Another factor in favor of maintaining cow numbers, even increasing them, is the decline in the number of horses and mules.

The quality of dairy cattle is improving. The new national average of 5000 pounds per cow has already been mentioned. This is the result of a steady improvement. Butterfat content has been on the upswing and stands at 199 pounds per cow for 1947 as compared with 194 pounds in 1946, 191 in 1945, and 182 in 1944. The practice of artificial insemination is having a definite effect on the quality of dairy cattle. High meat prices have resulted in close culling of herds. Constant work by dairy herd improvement associations is raising the general level of production. All of these factors mean more milk with less work which is definitely a step in the right direction.

Growth in the South

The stubborn fact is, however, that cow numbers are declining. Show a dairy farmer facts until both parties are slightly blue and he still says, "So what? I can't make any money at these prices. I'm going in for wheat." There are some areas where cow numbers are on the increase. Seven states listed increases rather than decreases in their cow populations, slight though they were. Maine, New Jersey, Pennsylvania, Maryland, Virginia, Florida, and California all showed increases with Virginia leading the parade. As a matter of fact all through the South there appears to be a sort of dairy renaissance. The North Carolina Dairy Products Association recently launched a program aimed at building the industry in that State into a $200,000,000 enterprise. Georgia is taking steps toward increasing the quality and quantity of its dairy products while other Southern States follow suit. A good deal of work on sweet potatoes and citrus pulp as cattle feed has shown some promise and if future developments continue in the same vein the South will have licked one of its most difficult problems in dairy cattle husbandry.

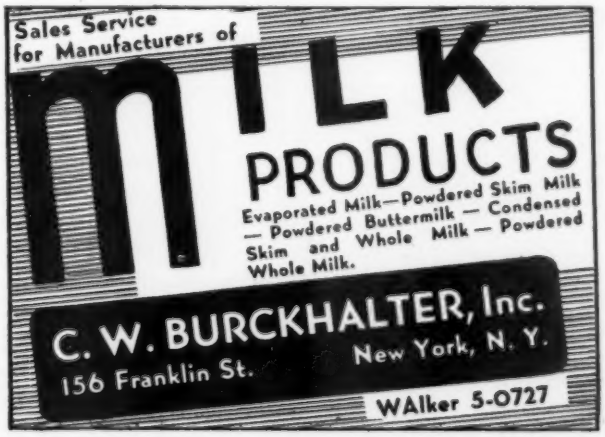
Neither the old patriarch, Bos Taurus Primigenius, nor Madame cow are aware of all the economic and political factors that are affecting their numbers. For their part the ladies will, if properly handled, continue to produce more and better milk. How far their number will decline is contingent on grain prices, factory wages, milk prices, mechanization, and human nature. Best guess is that the number will not go down much after 1948. It looks as though production of milk would stabalize at around 116 billion pounds. But that is only a guess because, after all, one can go straight to the cow's mouth and still not know the answer.

Every type dairy brush you need
Metal sponges
Aprons of rubber, plastic and oilskin
Creamery hose and rubber footwear

SAVE TIME! Consolidate Your Purchasing by Using the Complete E-Mac Line

For Our Complete Line of Dairy Supplies Write For Catalog No. 11

E-Mac DAIRY BRUSH CO., Reading, Pa.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Index of Advertisers

A — PAGE

American Association of Medical Milk Commissions 73
American Dairy Association....26-27
American Food Laboratories, Inc. 86

B

Behr-Manning (Division of Norton Co.) 53
Boler Petroleum Company..... 81
Bradway Chocolate Company.... 15
Buflovak Division of Blaw-Knox Co. 29
Buhl Manufacturing Co..... 63
Burckhalter, Inc., C. W..... 87

C

Certified Products Co..... 48
Cherry-Burrell Corp.....13, 19, 59, 71
C. I. T. Corporation..... 9
Creamery Package Mfg. Co., Inside Back Cover

D

Damrow Bros. Co..... 49
De Laval Separator Co., The Inside Front Cover
Diamond Alkali Company..... 21
Diversey Corporation, The 61

E

E-Mac Dairy Brush Co..... 87
EZE Orange Company..... 17

F

Fitzpatrick Co., The W. J..... 11

G

General Biochemicals, Inc..... 32
Girton Mfg. Co..... 23
Grandview Dairy, Inc..... 83

K

Klenzade Products, Inc..... 67
Kurly-Kate Corp. 85

L

Langsenkamp - Wheeler Brass Works, Inc. 47
Lathrop-Paulson Co., The..... 31

M

Mathieson Chemical Corporation. 45
Merit Manufacturing Co..... 84
Mission Dry Corporation..... 32
Mojonnier Bros. Co.....Back Cover

O

Overton Machine Co..... 84
Owens-Illinois Co. 7

P

Peerless Pump Division (Food Machinery Corp.) 65
Pittsburgh Plate Glass Company (Columbia Chemical Division) 73

R

Rogers Co., C. E..... 71

S

Schnabel Company, The..... 35
Schwartz Mfg. Co..... 55
Self-Locking Carton Co..... 77
Simmons Dairy Products, Ltd... 82
Solvay Sales Division, Allied Chemical & Dye Corporation.. 33
Sparkler Mfg. Co..... 75
Specialty Brass Company..... 37
Stainless & Steel Products Co... 39
Stoelting Bros. Co..... 51

T

Thatcher Mfg. Co..... 41

U

Unek Products Company..... 82

W

Waukesha Foundry Co..... 69

OF EVENTS TO COME

Iowa Milk Dealers and Association of Ice Cream Manufacturers of Iowa—Summer outing, June 5-6, Inn Hotel, Lake Okiboji, Iowa. Secretary J. H. Brockway, 908 Walnut Building, Des Moines 9, Iowa.

National Dairy Council—Summer conference, Edgewater Beach Hotel, Chicago, Ill.: June 14-16, 1948. Milton Hult, 111 No. Canal St., Chicago 6, Ill., President.

American Dairy Science Association—Annual convention, University of Georgia, Athens, Ga., June 14-16, 1948. R. B. Stoltz, Ohio State University, Columbus, Ohio, Secretary.

Florida Dairy Industry Association—June 17-19, Hotel George Washington, Jacksonville, Fla. Secretary E. T. Lay, Florida Dairy Association, 39 West Monroe St., Jacksonville, Fla.

Certified Milk Producer's Association of America, Inc. — Annual Convention Avalon Hotel Waukesha, Wisconsin, June 18-21. Luther Kohr, Executive Secretary, 1265 Broadway, New York 1, N. Y.

Illinois Dairy Products Association—Summer party sponsored by Boosters Association will be held at Nippersink Lodge, Genoa City, Wis., June 22 to 24. For reservations and additional information write Executive Secretary M. G. Van Buskirk, Illinois Dairy Products Association, 309 W. Jackson Blvd., Chicago 6, Ill.

World Dairy Congress—Twelfth meeting will be held in Stockholm, Sweden, August 15 to 19, 1949. For additional information, write XII Internationella Mejerikongressen, Postbox 642, Stockholm, Sweden.

International Dairy Congress—Twelfth international meeting will be held in Stockholm, Sweden from August 15 to 19, 1949. Enquiries concerning the congress should be addressed to XIIth International Dairy Congress, Post Box 642, Stockholm, Sweden.

Indiana Dairy Products Association—Annual convention will be held at the Claypool Hotel, Indianapolis, Ind., September 20-22, 1948. Executive secretary, C. C. Hadley, 622-24 Board of Trade Bldg., Indianapolis 4, Ind.

New York State Association of Milk Sanitarians—Annual convention, Hotel Statler, Buffalo, N. Y., September 22-24, 1948. C. S. Leete, New York State Department of Health, Albany, N. Y., Secretary.

Dairy Industries Exposition—Atlantic City, New Jersey, October 25-30, 1948. Roberts Everett, 616 Albee Bldg., Washington 5, D. C., Executive Secretary.

International Association of Ice Cream Manufacturers—Annual convention, Atlantic City, N. J., October 25-27, 1948. R. C. Hibben, 1105 Barr Bldg., Washington 6, D. C., Secretary.

Milk Industry Foundation—Annual convention, Atlantic City, N. J., October 28-30, 1948. E. B. Kellog, 1001 - 15th St., N. W., Washington, D. C., Secretary.

Iowa Milk Dealers Association—Annual convention will be held at the Hotel Fort Des Moines, Des Moines, Iowa, November 12 and 13, 1948. Secretary, John H. Brockway, 908 Walnut Bldg., Des Moines 9, Iowa.

American Public Health Association—Nov. 8-12, Boston, Mass. Dr. Reginald M. Atwater, 1790 Broadway, New York 19, N. Y.

Illinois Dairy Products Association—Annual convntion will be held at the Morrison Hotel in Chicago, Ill., December 13 to 15, 1948. Secretary, M. G. Van Buskirk, 309 W Jackson Blvd., Chicago 6, Ill.

●

Chicago, Ill.—National Dairy Council educational materials are being used as references by German educators who are revising public school courses. They were sent to Weisbaden, Germany, at the request of the director of the Office of Military Government for Hesse.

ASPECTS OF MILK HYGIENE

(Continued From Page 57)

the stirring rod in the cooling water overcame the difficulty on this farm.

The second case was very similar insofar as the original source and its elimination were concerned. It was dissimilar in that the farmer did not rinse the stirrer in the cooling tank water, yet ropiness appeared rather consistently by morning in his night's milk. The contaminated area was in the poorly drained barnyard. On this farm the milkhouse was situated directly over the well which was the source of water used for washing and rinsing equipment and for the cooling of the milk. The concrete cover of the well, which was also the floor of the milkhouse, had a crack in it so that water from the milkhouse could seep back into the well. Apparently the milkhouse floor became inoculated with ropy milk bacteria from the farmer's shoes. This inoculum had an opportunity to build up in the well by the daily addition of contaminated water from the floor. Since no chemical sanitizer was used as a final treatment of dairy utensils on this farm and since the dairy detergent did not inactivate the ropy milk organisms the utensils were always contaminated and served to inoculate the milk. To overcome the chain of contamiation, a new well cover was installed. The working surfaces of the milkhouse and cooling tank were thoroughly cleaned and then disinfected with a chlorine solution. A strong chlorine solution was prepared (1 pound of chlorine powder containing 15 percent available chlorine was dissolved in 5 gallons of water) and placed into the well. After one hour the pump was run for 15 minutes to draw this water through the pump and pipes. Apparently this served to destroy the ropy milk bacteria because none could be recovered from the water after this treatment, and no more ropy milk troubles were experienced.

Summary

Application of these five essentials to milk production will go a long way towards realizing a safe milk of high quality:

1. Clean and healthy cows.
2. Clean and healthy handlers.
3. Clean and sanitized dairy utensils.
4. Prompt and efficient cooling.
5. An adequate water supply that is both satisfactory and safe.

Reprinted from Michigan Agricultural Experiment Station Quarterly Bulletin, Vol. 30, No. 3, Pages 251 to 257, inc., February, 1948.

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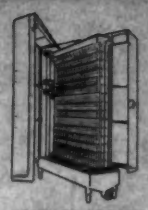

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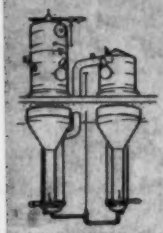
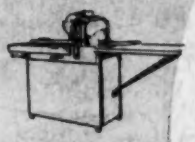


TUBULAR EVAPORATORS
(Single, Double-Effect)

ZONE-CONTROL VATS

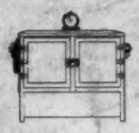


CUT-WRAP MACHINES

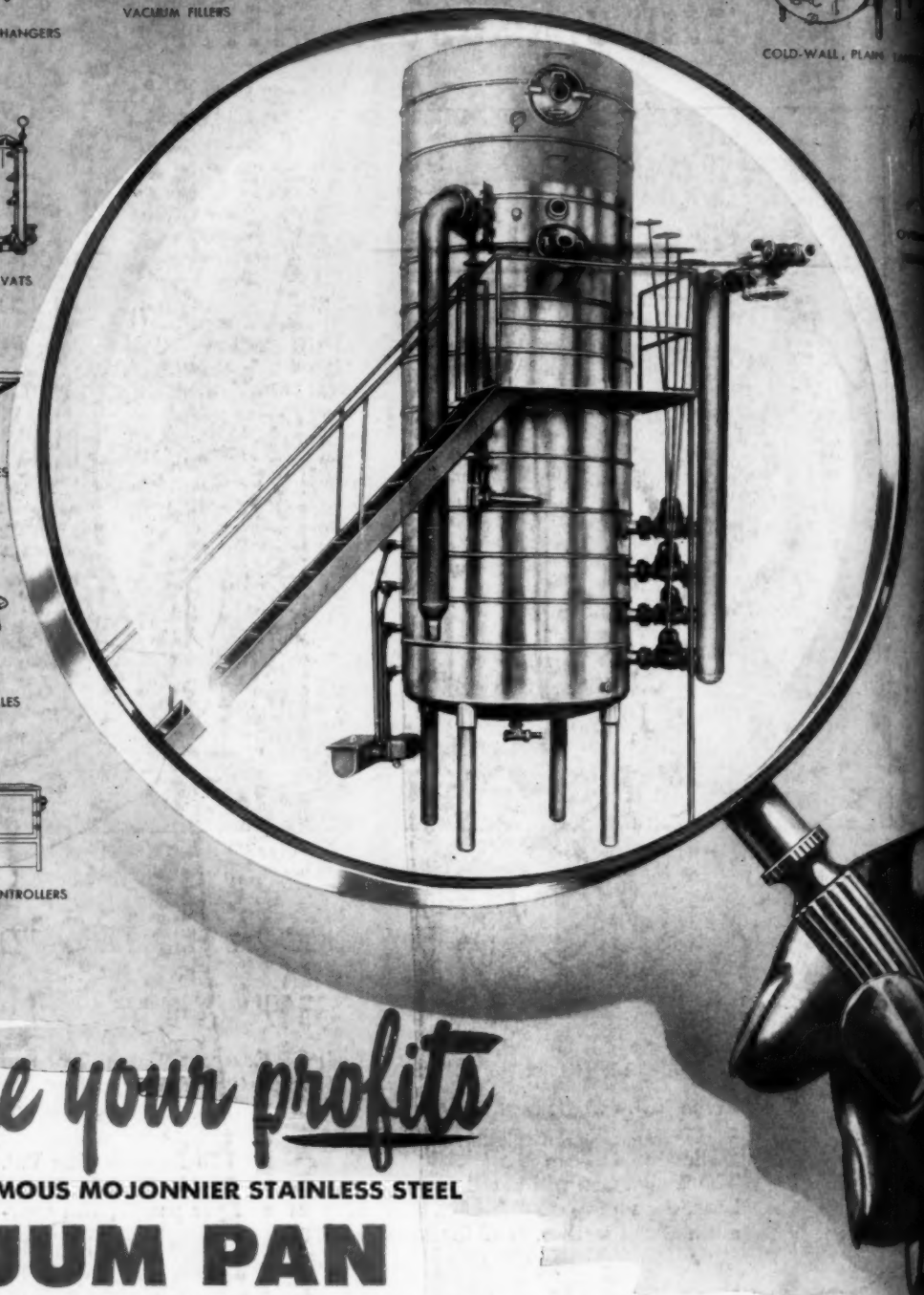
PROCESSED CHEESE KETTLES

BUTTER PRINT SCALES

BALANCE TANKS



CULTURE CONTROLLERS



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